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CH-91-13

LAMBTON-NORTH KENT AREA WATER WORKS

DECISION AND REASONS FOR DECISION

IN THE MATTER OF an undertaking by the Ontario Minister of the Environment to consider an amendment to the Lambton Area Water Works Order, most recently amended by a Joint Board under the *Consolidated Hearings Act*, on December 15, 1986, to enable water to be distributed through water works to supply the Towns of Dresden and Wallaceburg and portions of the Townships of Camden, Chatham and Sombra

- and -

IN THE MATTER OF the *Consolidated Hearings Act*, R.S.O. 1990, c. C-29, the *Ontario Water Resources Act*, R.S.O. 1990, c. 0-40, the *Ontario Municipal Board Act*, R.S.O. 1990, c. 0-27, and the *Intervenor Funding Project Act*, R.S.O. 1990, c. I-13

BEFORE: B. W. McLoughlin - Chair
L. L. Pugsley - Member

DATED at TORONTO this 31st day of MARCH, 1993

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IN THE MATTER OF an undertaking by the Ontario Minister of the Environment to consider an amendment to the Lambton Area Water Works Order, most recently amended by a Joint Board under the *Consolidated Hearings Act*, on December 15, 1986, to enable water to be distributed through water works to supply the Towns of Dresden and Wallaceburg and portions of the Townships of Camden, Chatham and Sombra

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BEFORE:	B. W. McLoughlin	-	Chair
	L. L. Pugsley	-	Member

APPEARANCES:

C. A. Carscallen, Q.C.	-	for the Ministry of the Environment
John A. Burgess, Q.C.	-	for the Town of Wallaceburg
V. R. M'Garry	-	for the City of Sarnia-Clearwater
R. G. Robertson	-	for the Town of Dresden
W. E. Tennyson	-	for the Township of Moore
L. J. Hosier	-	on his own behalf
B. W. Reid	-	for the Wallaceburg Industrial Association on his own behalf
J. L. Forgie	-	for the Wallaceburg Industrial Association on his own behalf
Michael Galloway	-	for the Wallaceburg Industrial Association on his own behalf

WITNESSES:

Allan Kenneth Mitchell	- for the Ministry of the Environment
Michael Reginald Provart	- for the Ministry of the Environment
Wayne Clark Wager	- for the Ministry of the Environment
Victor Ramdeo	- for the Ministry of the Environment
Jack Allan Lambe	- for the Township of Camden
Nelson James Prail	- for the Township of Chatham
John Demars	- for the Township of Sombra
Bruce Edward Boland	- for the Ministry of the Environment
Stuart Cameron Walker Wood	- for the Town of Wallaceburg
Shafik Nassouri Thomas	- for the Town of Wallaceburg
Jeffrey Wesley	- for the Town of Wallaceburg
Ronald William Kerr	- for the Township of Moore
Gary O'Flynn	- on his own behalf
Henrikis Timmers	- on his own behalf
Gary Reid	- on his own behalf
Ken Bradley	- on his own behalf
Randal James McNeil	- on his own behalf
Carl Evans	- on his own behalf
Partrick Lee Davis	- on his own behalf
Dennis Richard Jackson	- on his own behalf
Hector Van Damme	- on his own behalf

WITNESSES:

Steven Moran	- on his own behalf
Diane Gilhuly	- on her own behalf
Trevor Tristram	- on his own behalf
Richard William Gallerno	- on his own behalf
Joanas Faas	- for the Town of Dresden
Patrick Dunlop	- on his own behalf
Kenneth James MacKenzie	- for the City of Sarnia-Clearwater
Ronald Elgin Brooks	- for the City of Sarnia-Clearwater
Leo Edmund Denys	- for the Wallaceburg Water Commission
Leslie James Hosier	- on his own behalf
Brian William Reid	- on his own behalf re Wallaceburg Industrial Association
Michael Galloway	- on his own behalf re Wallaceburg Industrial Association
James Leslie Forgie	- on his own behalf re Wallaceburg Industrial Association
William Charles Ramsden	- for the Ministry of the Environment

REASONS FOR DECISION

The proposal is that the Ministry of the Environment (MOE) will be responsible for the design, construction, operation, maintenance and repair of a new water works system known as the Lambton-North Kent Area Water Works (Lambton-North Kent System). These works will be owned by the Province and will: expand the water supply in the Township of Moore and the Township of Sombra, which are presently partly served from the existing West Lambton Area Water Supply System (West Lambton System); replace the existing municipally owned water works in each of the Town of Wallaceburg and the Town of Dresden; and provide a water supply to parts of the Township of Chatham and the Township of Camden. Initially it was intended to make the water supply available to parts of Walpole Island.

The source of the water supply is to be the West Lambton System which will undergo an upgrading and expansion to improve its water supply system, that of the existing East Lambton Area Water Supply System (East Lambton System), and provide the source for the Lambton-North Kent System.

Through a special funding formula approved by the Cabinet, the Province will pay the first \$43,100,000 and 75 percent of the balance of the capital costs of the works. In 1994 dollars this will be \$55,475,000 out of a total estimated cost of \$59,600,000. The balance of \$4,125,000 will be paid by the participating municipalities. The costs of the upgrading and expansion of the West Lambton System will be shared by the municipalities which share the system: the East Lambton System municipalities and the Lambton-North Kent System municipalities. A portion of the outstanding debt related to the capital costs of the existing West Lambton System is to be assumed by the Lambton-North Kent System municipalities. The Township of Moore and the Township of Sombra as participants in the West Lambton System already carry a portion of this debt, as do the other municipalities in this system and the municipalities in the East Lambton System.

There are two aspects of the aggregate capital debt related to the development of the Lambton-North Kent System which is to be the responsibility of each of the participating municipalities. The first aspect is that each municipality will retire its capital debt through the payment of a uniform water rate. This rate will include the capital and operating costs and reserve contributions for: the treatment of water (West Lambton System), the upgrading and expansion (West Lambton System) and the Lambton-North Kent distribution system. In the

cases of the Township of Moore and the Township of Sombra, the West Lambton System rates will apply. The proposed Lambton-North Kent System uniform water rate will apply to the Township of Chatham, the Township of Camden, the Town of Wallaceburg and the Town of Dresden.

The second aspect is that although the Province will own the Lambton-North Kent System, the participating municipalities will have their respective capacities to borrow capital funds restricted by their shares of the assumed West Lambton System debt, the West Lambton System upgrading and expansion debt and the Lambton-North Kent System debt. This is the way in which their debt capacities would have been restricted had the participating municipalities developed, financed and owned the proposed works.

Before this Joint Board (Board) is an application by the Minister of the Environment for an amendment to what is described in the style of cause as the Lambton Area Water Works Order. The amendment to this Order would permit the sale of water from the West Lambton System to the Lambton-North Kent System. The Lambton-North Kent System is to be developed and funded through the terms of a Master Agreement between the Province and each of the participating municipalities which make up the proposed area. Also before the Board, for each of the Town of Wallaceburg, the Town of Dresden, the Township of Sombra, the Township of Camden and the Township of Chatham is an application to the Ontario Municipal Board for approval of a Capital Expenditure to allow these participating municipalities to enter into the Master Agreement.

On November 24, 1992, the Township of Moore passed By-law Number 55 of 1992 which authorizes the execution of an agreement with the Minister of the Environment. The agreement fixes the Township's share of the net capital cost of the Lambton-North Kent System at the fraction equal to \$80,000/\$4,125,000 of the total-cost-after-subsidy. The agreement also establishes the "Moore Reserve Fund", with a contribution rate of \$.04 per 1000 gallons of water.

At the hearing of the evidence on the merits, the Ministry of the Environment, the Town of Dresden and the Township of Moore appeared as parties in support of the applications. The Town of Wallaceburg and the City of Sarnia-Clearwater appeared in opposition to the applications, as did Mr. Leslie Hosier and the Wallaceburg Industrial Association. The Board was advised by counsel for the MOE, that the Township of Sombra, the Township of Camden and the Township of Chatham were in support of the applications, subject to the concern, shared

by most of the participating municipalities, for the cost impact of the Lambton-North Kent System on their debt capacities. Although the City of Sarnia-Clearwater is also concerned with the cost impact of the works on its debt capacity, the City accepts the upgrading of the West Lambton System as being necessary.

A number of ratepayers, who either object to the proposed development or support it, gave evidence. Because the participants and the ratepayers were not represented by counsel and to ensure the Board had before it all views about the proposed works, these groups were given a wider latitude in their presentations which in some instances were based on combinations of fact, hearsay and personal opinion.

At the outset of the hearing, the City of Sarnia-Clearwater brought a motion requesting that these matters be adjourned until after Bill 165, which could have an effect on the regulations governing the permitted debt capacity of municipalities, became law. The advantages of an adjournment would be twofold. If the results of Bill 165 excluded the costs of waterworks from the calculation of the debt capacity of the subject municipalities, then that issue would be resolved and the hearing would be shortened. An adjournment would also provide time for the opponents of the applications to approach the MOE with alternative works, claimed to be less costly, which are at what may be described as the concept stage. After hearing the submissions of the parties and the participants, the Board denied the motion on the grounds of the uncertainty of the timing of Bill 165 and the jurisdiction of the Board to hear and determine the merits of an alternative proposal. The reasons for the Board's finding on its jurisdiction will be discussed later.

The St. Clair River flows south from Lake Huron past Sarnia and what is known as Chemical Valley, to below Port Lambton where at the delta it splits into several channels. The main channel flows to the west side of the north end of Walpole Island and into Lake St. Clair. To the east is the Chanel Ecarte which flows along the easterly shoreline of Walpole Island past the mouth of the Sydenham River, which in turn flows by Dresden and then Wallaceburg on its route to the Chanel Ecarte, and into Lake St. Clair.

Since prior to the turn of the century, the Town of Petrolia in the Township of Enniskillen has had its water supplied directly from the Brights Grove Water Treatment Plant at Clearwater on Lake Huron. Clearwater is now part of the City of Sarnia-Clearwater. The Township of Enniskillen is to the east of the West Lambton System and to the south of the East Lambton System.

The West Lambton System was developed by the MOE in the mid 1970's. This system comprises the Lambton Water Treatment Plant in Sarnia which is located where the St. Clair River meets its headwater, Lake Huron. It serves the City of Sarnia-Clearwater and parts of the Townships of Moore and Sombra as far south as Port Lambton. Over the years the system has been extended as far south as the northwest corner of the Township of Chatham and to the east to the Village of Brigden area in the Township of Moore.

In the mid 1980's, the MOE developed the East Lambton System to serve the Township of Plympton and the Township of Warwick. The East Lambton System also receives water from the Lambton Water Treatment Plant through water mains extended from the City of Sarnia-Clearwater. These are two subsystems. The Wyoming Watford, a loop line subsystem, services parts of the rural areas in the Townships of Plympton and Warwick, the Town of Wyoming, the Town of Watford and the Village of Warwick. The Forest subsystem supplies water to the north to the Town of Forest and into the southwest corner of the Township of Bosanquet which participated in the East Lambton Area Water Supply System.

To the south of the proposed Lambton-North Kent System is the Kent-Chatham System which pipes raw water from Lake Erie to the City of Chatham where it is treated and distributed in the vicinity.

Walpole Island has a water treatment plant and a distribution system to serve its needs.

The proposed Lambton-North Kent System is to provide capacity to extend service in the Townships of Moore and Sombra (which are partly served by the West Lambton System), and to make the treated water supply available to Walpole Island, the Towns of Wallaceburg and Dresden and parts of the Townships of Chatham and Camden. The Town of Wallaceburg has its own water treatment plant, elevated storage and a pumping system. The water source is the Chancel Ecarte. The Town of Dresden also has its own water treatment plant and elevated storage. The Sydenham River is the source of supply.

The study of waterworks for the Lambton-North Kent System was the result of the longstanding need for a new water source for the Town of Dresden and of the pollution of the St. Clair River by spills from the area known as Chemical Valley. Concerns as to the safety of the water supply to municipalities and others with water intakes to the south of Chemical Valley were heightened by the Dow Chemical spill, which also raised considerable public concern.

Before the Board considers the positions, evidence and arguments of the parties, participants and the public, it will comment on the matters of jurisdiction, the elements of the applications which fall within the Board's jurisdiction and the relevance of some of the evidence.

There has been no challenge of this Board's jurisdiction to hear and determine the issues on the merits of the applications before it, which arise from the provisions of the Ontario Water Resources Act and the Ontario Municipal Board Act.

Subsections 74(4) and (7) of the Ontario Water Resources Act permit a Director as defined in that Act to amend the terms and conditions in any order, provided that a hearing is held by the Environmental Assessment Board. The West Lambton System is an area of public water service defined and designated by order of a Director pursuant to subsection 74(2). The Board is requested to amend the definition and designation of the Lambton Area Water Supply System order, to allow the sale of water to the Lambton-North Kent System.

Under section 10, the Minister of the Environment has the power to upgrade and to expand the water works which make up the West Lambton System. Therefore, the matters pertaining to the West Lambton System, namely, the Environmental Study Report (ESR) and Environmental Assessment, the need for the upgrading and the expansion of the works, the timing of such works and the costs of the upgrading and expansion are not matters which are before this Board. However, the Board is requested to approve the assumption by the Lambton-North Kent System, of a portion of the existing debt of the West Lambton System, and the allocation of a portion of the costs of the upgrading and expansion of that system. These are matters that are properly before the Board as part of the Applications for Capital Expenditure brought under section 65 of the Ontario Municipal Board Act. Approval of these applications would permit the participating municipalities to enter an agreement with the Minister of the Environment, pursuant to section 11 of the Ontario Water Resources Act, for a supply of water.

Similarly, with respect to the Lambton-North Kent System, the Environmental Study Report and the Environmental Assessment are not matters that are before this Board.

The special grant of the Province, which is based on the first \$43,100,000 of the estimated costs and 75 percent of the balance, is also not before the Board. It is understood by the Board that the grant is tied to the undertaking described in the Environmental Study Report for the Lambton-North Kent System. This undertaking fixes the West Lambton System as the source of supply, the component works and their location, the routing of the mains and the phases of

the construction. Also, this special grant is made available on the proviso that the Township of Chatham, the Township of Camden, the Town of Wallaceburg, and the Town of Dresden will accept a uniform water rate. The water rate is to include the amounts necessary to retire the debts assumed and incurred because of the undertaking, the costs of the operations, and the provision of reserve funds.

A considerable amount of evidence was directed to which points in time the municipalities became aware that the Province was going to pay 75 percent of the costs in excess of the first \$43.1 million, and that the municipalities would have to assume a portion of the existing debt of the West Lambton System and a portion of the debts related to the upgrading and expansion of that system. This evidence satisfies the Board that there is no prejudice, in that at the commencement of this hearing, the parties and participants knew what was proposed by the MOE both in the terms of the undertaking, funding and the amount of the debt to be incurred and how it was intended that it would be discharged. In fact, Council for the Town of Wallaceburg passed a resolution which supports a modified development which includes the provision of a new water supply for the Town of Dresden. There is also evidence that there was substantial public awareness of the proposed development and impact on water rates.

Since the late 1970's the Town of Dresden has attempted to obtain a new source of water to replace the Sydenham River. There are health concerns about this water supply because of the intense use of Sydenham River valley lands for cash crops, with the attendant uses of natural and chemical fertilizers. When the Town of Petrolia and the Township of Enniskillen, which are to the north of the Town of Dresden, decided not to join the East Lambton System, the extension of this Lake Huron source of supply was closed to the Town of Dresden.

In November of 1985 the Towns of Wallaceburg and Dresden, the Townships of Sombra, Chatham and Camden and the Walpole Island Band Council formed the Lambton-North Kent Water Supply Liaison Committee (Local Liaison Committee) for the purpose of obtaining a water supply from Lake Huron. The MOE and M.M. Dillon Limited (Dillon) were also represented on the Local Liaison Committee. The Dillon firm was retained in late 1985 by the MOE to study and report upon alternative sources of water supply based on terms of reference in the context of the Environmental Assessment Act. These terms of reference were prepared by the MOE and approved by the Local Liaison Committee.

Dillon's Manager of the Environmental Engineering and Science Division made this response to the question asked by counsel for the MOE (Transcript, Volume 1, page 92).

Q. Could you tell us just briefly the study approach process that the study involved and why you chose that process?

A. The study process is really required by law now in the Province of Ontario under the Environmental Assessment Act and the approach and the process we used is as described in the Ministry's Class EA document. It involves evaluating the problem; establishing the need for an undertaking; considering whether there are any alternatives to the solution of those problems; considering design alternatives for the preferred option and finally, preparing an environmental study report for circulation to the public for final approval.

Throughout this period of course we followed all of the prescribed processes for contact with the municipalities, the public, the interested government agencies and in fact we did a fair bit more than the minimum prescribed in the Class EA.

Stage 1, in what is referred to as the Study Approach and Timing, was the preparation of the "work plan", in December of 1985, which was approved by the MOE and the Local Liaison Committee.

In January of 1986, during Stage 2 of the study, four strategic supply options were identified: Lake Huron via the West Lambton System, Lake Erie for either raw water or treated water via the Kent-Chatham System; Chancel Ecarte via Wallaceburg; and the status quo, the Chancel Ecarte for the Town of Wallaceburg and the Sydenham River for the Town of Dresden. The status quo option relates only to sources of water and does not extend to the use of all or part of the existing works in the municipalities. It is not what was referred to in the hearing as the "do nothing" option. Part of Stage 2 was to review these supply options with the Local Liaison Committee and citizens' groups. The strategic supply options were approved by the Local Liaison Committee.

The primary purpose of Stage 3, from February to April of 1986, was to identify the preferred strategic supply option, by evaluating each option on the basis of service factors, natural and socio-economic impacts, and cost. In conjunction with Stage 3, Public Information Centres were held in the Towns of Wallaceburg and Dresden and an Attitude Survey was conducted. Prior to the submission of the Interim Stage 3 Report - Evaluation Of Supply Options Of May 1986, which documented Stages 1, 2 and 3, the Local Liaison Committee had "unanimously endorsed" Lake Huron as the preferred source of supply, via the West Lambton System.

Stage 4, from March to December of 1987, identified a preferred design alternative. This evaluation was based on water quality, service factors, natural and socio-economic impacts, and cost. During Stage 4, consideration was given to expanding the service areas into the Townships of Chatham and Camden. At the end of Stage 4, Public Information Centres were again held in the Towns of Wallaceburg and Dresden. The Stage 4 report was submitted to the MOE in March of 1990.

Stage 5, the preparation of the Environmental Study Report, took place from January to September 1990. It includes the preliminary design of the preferred supply alternative which is Lake Huron and a summary and documentation of the preceding stages. The ESR was submitted by Dillon to the MOE on August 31, 1990. Dillon's transmittal letter (Exhibit 13) states, in part:

To complete the requirements under the Environmental Assessment Act, the ESR will be circulated for public and agency review for a minimum period of 30 days. Copies of the ESR will be available for public review at the Ministry's Regional Office in London and the District Office in Sarnia, as well as at the municipal offices of all participating communities.

The public review period will commence on or before 5 September 1990 with public advertisements in six local newspapers and will end on Wednesday, 10 October 1990.

This public review process, once again included Public Information Centres in the Towns of Wallaceburg and Dresden.

The Lambton-North Kent System undertaking is described in the ESR (Exhibit 13) as follows:

1.5 GENERAL DESCRIPTION OF THE PROJECT

1.5.1 Location of the Project

The study area for this project is shown in Figure 1.1 (in pocket at back of report). It comprises the Townships of Moore and Sombra in the County of Lambton (also part of the public water service area for the West Lambton Area Water Supply System), the Township of Camden and part of the Township of Chatham in the County of Kent, together with the Towns of Wallaceburg and Dresden and Walpole Island.

1.5.2 Description of the Undertaking

The Lambton-North Kent Area Water Supply System provides for the phased development of long-term water supplies to serve the Towns of Wallaceburg and Dresden, the Townships of Moore, Sombra, Chatham and Camden and Walpole Island, for a 20 to 25 year design period to year 2015. The design of the system is open-ended to facilitate expansion of the water supply system beyond the defined planning period.

Development of the long-term water supply in this planning period is based on current forecasts of growth in population and water demands. Actual growth in population and water demands may result in a planning outlook which differs from the 20 to 25 year period. Thus, the Lambton-North Kent Area Water Supply System should be viewed as a means of providing a water supply to satisfy the long-term growth in population and water demands which is currently expected over the next 25 years. The plan for the water supply system should be reviewed regularly in the future to take into account the latest data on population and water demand forecasts and supply capabilities.

The West Lambton area (including the Townships of Moore and Sombra) is presently supplied with potable water from Lake Huron via the Lambton Area Water Treatment Plant and the transmission system shown on Figures 1.1 and 1.2. Development of the Lambton-North Kent Area Water Supply System basically involves tapping into the existing West Lambton supply line in central Moore Township and constructing a new water transmission main south to Wallaceburg and east to Dresden. The major components of this system are shown on Figure 1.2 and include:

- A pumping and security storage facility located adjacent to the existing 900 mm transmission main between the existing Indian road elevated tank and Corunna.
- Security storage at Wallaceburg to serve all North Kent area users, together with local peak balancing and fire storage.
- New elevated storage in the Town of Wallaceburg for pump control and improvement of system hydraulics.
- Pumping to serve the Town of Wallaceburg, Walpole Island and West Chatham Township.
- Pumping to serve the Town of Dresden, the Township of Camden and part of Chatham Township.

- Trunk watermain from the existing 750 mm line east of Mooretown in Moore Township, south to the Town of Wallaceburg.
- Trunk watermain from the Town of Wallaceburg east to the Town of Dresden and terminating at the existing standpipe in Dresden.
- Watermain to interconnect the new elevated tank in Wallaceburg with a strong point in the existing distribution network, via Main Street.
- Extension of the existing watermain on Dufferin Avenue in West Chatham Township to a terminal meter chamber at a point just east of the Chanel Ecarte.
- Looping of the new transmission main in Sombra Township with the existing West Lambton supply at Port Lambton, plus in-line booster pumping for Port Lambton.
- Local supply line in Sombra Township to serve the hamlet of Wilkesport.

The design basis and criteria for each of the system components are discussed in Chapter 5, together with the design and construction schedule, including the practical phasing of construction.

The location of the existing and proposed works are shown on the Proposed Water Supply System map which is taken from the Lambton-North Kent Area Water Supply Study - Environmental Study Report (Exhibit 13). The map is Schedule "A" to this decision.

As previously stated the preferred source of supply is Lake Huron via the existing West Lambton System. Certain works which are part of the upgrading and expansion are to be undertaken by the MOE. These works were the subject of a separate ESR which was completed in November of 1990. The public review period for this study effectively ended on January 4, 1991. These works are germane to the subject applications because approximately 16 percent of the proposed expanded capacity will serve the Lambton-North Kent System. The participating municipalities in the Lambton-North Kent System will bear a proportionate share of the costs of the existing, upgraded and expanded works in addition to the costs of the Lambton-North Kent System.

The West Lambton System ESR (Exhibit 16) states in part:

1.5 GENERAL DESCRIPTION OF THE PROJECT

1.5.1 Location of the Project

The overall study area for this project is shown in Figure 4 and consists of the public water service areas for the West Lambton Area Water Supply System, the East Lambton Area Water Supply System, and the possible Lambton-North Kent Area Water Supply System.

The main focus of this study is on the primary system of the West Lambton System. This primary system consists of the Lambton Area Water Treatment Plant in the City of Sarnia, the trunk water mains in the Village of Point Edward, City of Sarnia and Town of Clearwater, and the Indian Road Elevated Tank in the Town of Clearwater. This primary system supplies the balance of the West Lambton System in Moore and Sombra Townships, the East Lambton System, and would also supply the contemplated Lambton-North Kent System.

The Lambton Water Treatment Plant is located in the City of Sarnia on Lake Huron at its outlet to the St. Clair River as shown in Figure 2. The plant site is bounded on the north by Lake Huron, the west by the St. Clair River, the east by Fort Street, and the south by the Village of Point Edward.

The southern limit of the primary system studied in this ESR is the site of the proposed Corunna reservoir which will be located on Lasalle Road just west of Highway 40 in Moore.

1.5.2 General Description of the Undertaking

The expansion and upgrading of the Lambton Area Water Supply System ensures a reliable long-term water supply to serve the existing and future consumers in the public water service areas of the West Lambton and East Lambton Area Water Supply Systems, and also for the proposed Lambton-North Kent Area Water Supply System, for a 20 to 25 year design period to the year 2015.

The expansion and upgrading of the Lambton Area Water Supply System consists of additions/improvements to the primary system from which all other sub systems are or will be supplied. The major components of this undertaking are:

- i) Expansion of the Capacity of the Lambton Area Water Treatment Plant by the addition of sedimentation as a pre-treatment process and re-rating of the existing filters from 12 m/h to 18 m/h filtration rate. This would increase the gross capacity of the plant from 182 to 273 ML/d. Reduction in the amount of water required for filter backwashing and service water with the use of sedimentation would result in a net capacity of about 260 ML/d for

the expanded plant compared to 156.5 ML/d with the existing direct filtration plant.

The expansion of the plant will also incorporate the identified improvements/additions based on operating and maintenance requirements.

- ii) Upgrading of the security and reliability of supply by means of a reservoir and pumping facility adjacent to the existing 900 mm trunk main between the Indian Road elevated tank and Corunna. This facility is referred to as the Corunna Reservoir and Pumping Station. The reservoir will contain security storage of one average day's demand for the primary system and Moore and Sombra Townships, and also peak balancing storage for Moore and Sombra. The pumping station will include capacity to pump to Moore and Sombra and also to back-pump to the primary system for emergency purposes or to share peak demand in the primary system with the Lambton WTP high lift station. Sharing peak demand will avoid excessive pressures in the mains near the plant while ensuring adequate pressures in the primary system including the lakeshore area of Sarnia/Clearwater.

Low pressures in the Moore/Sombra systems will be partially alleviated by pumping from the Corunna Pumping Station but the new mains, as proposed in the Lambton-North Kent Area Water Supply System ESR, will be required to ensure adequate pressures in future.

- iii) Upgrading the management/disposal of water treatment residues by means of a residue management plant (RMP) to treat sludge from the new sedimentation tanks and backwash water from the filters. Treated effluent from the RMP will be discharged to the St. Clair River via the backwash drain; dewatered sludge from the RMP will be taken to landfill for disposal.

The need for the components of the Undertaking which upgrade the security and reliability of supply and upgrade the management of treatment residues is independent of the need for the capacity expansion of the Plant. Based on current water demands and untreated washwater discharge, the upgrading components are still needed.

More detailed descriptions of the principal components of the Undertaking are given in the following subsections.

The ESR (Exhibit 13) shows the estimated capital of costs of Lambton-North Kent System in 1990 dollars to be:

TABLE 5.7
SUMMARY OF CAPITAL COST ESTIMATES (1990 \$)

1.	Watermains		
	a)	Moore Township to Wallaceburg	
		• Moore Township	\$ 6.0 M
		• Sombra Township	7.3 M
		• Chatham Township (West)	5.2 M
	b)	Wallaceburg to Dresden	
		• Chatham Township (East)	\$ 7.4 M
		• Camden Township	2.4 M
		• Town of Dresden	1.0 M
	c)	Loop/Branch Lines	
		• Port Lambton	\$ 1.2 M
		• Wilkesport	0.8 M
		• Wallaceburg Grid	0.6 M
		• Walpole Meter Chamber	0.1 M
2.	Corunna Ground Storage and Reservoir Pumping Station		
		• Reservoir (See Note 1)	--
		• Pumping Station (See Note 2)	\$ 0.7 M
3.	North Kent Ground Storage Reservoir and Pumping Station		
		• Reservoir	\$ 5.6 M
		• Pumping Station	4.0 M
4.	Wallaceburg Elevated Tank		\$ 1.2 M
5.	Port Lambton Booster Pump		\$ 0.2 M
6.	Dresden Booster Pump		<u>\$ 0.1 M</u>
	TOTAL CAPITAL COST		<u>\$43.8 M</u>

NOTE 1: Cost estimate for Corunna Reservoir is included in the Lambton Area Water Treatment Plant Expansion and Upgrading Study.

NOTE 2: Cost estimate for Corunna Pumping Station represents only the incremental cost for expanding station proposed in Lambton Area Water Treatment Plant Expansion and Upgrading Study, for North Kent consumers only.

NOTE 3: Cost estimates above include an allowance for engineering and construction contingencies, but exclude the cost of land acquisition.

NOTE 4: Capital cost estimates are in 1990 \$. For budgetary/planning purposes, an inflation allowance of 20 to 25% should be added based on assumed design and construction schedule.

The costs of the upgrading and expansion of the West Lambton System, expressed in terms of 1990 dollars, are \$45,200,000 which are made of Schedule A and Schedule C items under the Class EA process (Exhibit 16).

6.2 CAPITAL COST ESTIMATES

The following cost estimates are for the works identified in the Schedule C-Class EA.

a) Lambton Water Treatment Plant Expansion and Upgrade

Estimated Capital Cost	\$16,300,000
Engineering and Contingency (15%)	<u>2,400,000</u>
TOTAL	\$18,700,000

b) Residue Management Plant

Estimated Capital Cost	\$ 6,200,000
Engineering and Contingency (15%)	<u>900,000</u>
TOTAL	\$ 7,100,000

c) Corunna Reservoir and Pumping Station

Estimated Capital Cost	\$11,700,000
Engineering and Contingency (15%)	<u>1,700,000</u>
TOTAL	\$13,400,000
GRAND TOTAL	<u>\$39,200,000</u>

Note:

1. Costs are in 1990 dollars. For budgetary/planning purposes, it is suggested that an allowance of approximately 7% per annum be added to cover escalation of construction costs from 1990 to the time of actual construction.
2. The cost estimate for the booster pumping station at the proposed Corunna Reservoir is based on a pumping station sized to suit the needs of Sarnia, Point Edward, Clearwater, Moore and Sombra Townships only.
3. In the Lambton-North Kent Area Water Supply Study, an allowance of \$700,000.00 has been provided for increasing the capacity of the Corunna Pumping Station as necessary to suit the needs of the North Kent Area.

6.3 COST ESTIMATES FOR OTHER PLANT IMPROVEMENTS

Certain additional items relating to plant operation and maintenance were identified during the course of the study. These items are considered as Schedule A activities under the Class EA process.

Items included relate to:

- Improvements of operational efficiency
- Health and safety related items
- Replacement of obsolete equipment
- Instrumentation and controls for the Water Treatment Plant, East Lambton and the proposed Lambton-North Kent Water Supply Systems
- Shore Protection at the plant site.

Estimated Capital Costs of Other Plan Improvements	\$5,200,000
Engineering and Contingencies (15%)	<u>800,000</u>
TOTAL	<u>\$6,000,000</u>

In addition to the sharing of the costs of the Lambton-North Kent System and the West Lambton System upgrading and expansion, the participating municipalities are to assume a portion of the outstanding debt of the existing West Lambton System which, after deduction of a \$422,664 surplus, is \$20,137,056 at March 31, 1991.

The costs of Lambton-North Kent System and West Lambton System have been restated in terms of 1994 dollars to account for anticipated inflation. A land component cost for the Lambton-North Kent System of \$1.0 million has been added to the costs previously stated. This cost is included in Inflation and Contingencies figure of \$13.2 million. Inflation for all costs is based on a rate of 7 percent compounded annually. MOE has broken down the total costs of the West Lambton System between the upgrading and expansion works.

PROPOSED DEBT ALLOCATION

	<u>WEST LAMBTON MARCH 31/91</u>	<u>LAMBTON- NORTH KENT</u>	<u>WEST LAMBTON PHASE I UPGRADE</u>	<u>PHASE II EXPANSION</u>
OUTSTANDING DEBT	<u>\$20,137,056</u>			
CAPITAL COSTS (1990 DOLLARS)		(1) \$43,100,000	\$21,583,447	\$23,670,165
INFLATION AND CONTINGENCIES		13,200,000		
INFLATION			4,000,000	4,400,000
INTERIM FINANCING TO 1994 (ESTIMATED)		<u>3,300,000</u>	<u>2,700,000</u>	<u>2,900,000</u>
CAPITAL COSTS (1994 DOLLARS)		<u>\$59,600,000</u>	<u>\$28,283,447</u>	<u>\$30,970,165</u>
<u>PROVINCE OF ONTARIO SPECIAL GRANT</u>				
BASE AMOUNT		\$43,100,000		
75% OF \$16,500,000 (\$59,600,000-\$43,100,000)		<u>12,375,000</u>		
		<u>\$55,475,000</u>		
<u>PROVINCE OF ONTARIO SUBSIDY</u>				
@ 15 PERCENT			<u>4,242,517</u>	<u>4,645,525</u>
OUTSTANDING DEBT	<u>\$20,137,056</u>	<u>\$ 4,125,000</u>	<u>\$24,040,930</u>	<u>\$26,324,640</u>

(1) \$43,800,000 less \$700,000 attributable to proposed works to serve Walpole Island.

The proposed debt allocation is as follows:

SUMMARY OF DEBT ALLOCATION

	<u>Flows (MG)</u>	<u>West Lambton Existing Debt Phase I Upgrade & Phase II Expansion</u>	<u>Lambton- North Kent @ \$59.6M</u>	<u>Total</u>
<u>West Lambton System</u>				
City of Sarnia-Clearwater	4518.0	\$47,521,351		\$47,521,351
Village of Point Edward	117.6	1,236,944		1,236,944
Township of Moore	648.0	6,815,811	\$ 80,000	6,895,811
Township of Sombra	<u>111.6</u>	<u>1,173,834</u>	<u>419,026</u>	<u>1,592,860</u>
	<u>5395.2</u>	<u>\$56,747,940</u>	<u>\$ 499,026</u>	<u>\$57,246,966</u>
<u>East Lambton System</u>				
All Municipalities	<u>232.7</u>	<u>\$ 2,447,593</u>	<u>—</u>	<u>\$ 2,447,593</u>
<u>Lambton-North Kent System</u>				
Town of Wallaceburg	678.0	\$ 7,131,358	\$1,389,984	\$ 8,521,342
Town of Dresden	350.0	3,681,380	1,567,046	5,248,426
Township of Chatham	40.0	420,729	354,561	775,290
Township of Camden	<u>7.0</u>	<u>73,628</u>	<u>314,383</u>	<u>388,011</u>
	<u>1075.0</u>	<u>\$11,307,095</u>	<u>\$3,625,974</u>	<u>\$14,933,069</u>
ROUNDING (Minus)		(\$2)		(\$2)
TOTAL	<u>6702.9</u>	<u>\$70,502,626</u>	<u>\$4,125,000</u>	<u>\$74,627,626</u>

The Master Agreement provides that the capital costs of the Lambton-North Kent System will have a 30 year amortization period for the blended payments on account of principal and interest to be made by the Towns of Wallaceburg and Dresden and the Townships of Chatham and Camden. Capital debts applicable to the Townships of Moore and Sombra are not to be discharged through what is referred to as the Lambton-North Kent System uniform rate structure. The Township of Sombra will reduce its debt through the water rates of the West Lambton System. The Township of Moore will pay its \$80,000 share upon completion of the works.

CALCULATION OF WHOLESALE WATER RATE

Total Capital Costs	\$4,125,000
Less - Portion applicable to Moore and Sombra (\$80,000 + \$419,026)	<u>499,026</u>
	<u>\$3,625,974</u>

Annual debt charge amortized over 30 years @ 11%	<u>\$ 415,588</u>
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Estimated annual operating costs - 1994/1995	<u>\$ 150,000</u>
Estimated flows	<u>1,075 M.G.</u>

	<u>FLows</u>	<u>CAPITAL DEBTS</u>	<u>ESTIMATED 1994/95 OPERATING COSTS</u>
Town of Wallaceburg	678	\$262,110	\$ 94,605
Town of Dresden	350	135,308	48,837
Township of Chatham	40	15,464	5,581
Township of Camden	<u>7</u>	<u>2,706</u>	<u>977</u>
	<u>1,075 (M.G.)</u>	<u>\$415,588</u>	<u>\$150,000</u>

Lambton-North Kent System
distribution costs per 1000 gallons

Capital debt	38.66 cents
Operating costs	13.95 cents
Reserve	<u>4.00 cents</u>

Estimated 1994/1995 uniform rate for the Lambton-North Kent System	<u>56.61 cents</u>
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West Lambton System - estimated cost
of water 1994/1995 including plant
upgrading and expansion per 1000 gallons

Capital debt	91.50 cents
Operating costs	<u>42.00 cents</u>
	<u>133.50 cents</u>

Estimated cost of water to Lambton-
North Kent System municipalities with
full plant expansion per 1000 gallons

(1) 190.11 cents

(1) Excludes local costs of distribution and administration.

The Lambton-North Kent System is intended to fulfil a number of objectives. One objective is to provide the Town of Dresden with a source of supply other than the Sydenham River. The quality of the untreated raw water in the River is impaired by agricultural run-off and high turbidity. The water treatment plant lacks the capacity to meet current and future requirements, although the treated water is acceptable by MOE standards except in periods of high nitrate concentrations and excessive turbidity.

The West Lambton System supplies mainly the more densely populated west side of the Township of Sombra. The existing system has reached the demand levels of the design and the system is experiencing low water pressure. The Lambton-North Kent System will make piped water available to the northern parts of the Township, where groundwater sources in many cases are of unacceptable quality.

Only small parts of the Township of Chatham have piped water supplied from the Town of Wallaceburg and the Township of Sombra. This municipality also relies on groundwater sources which are often inadequate in volume and quality. The Lambton-North Kent System will initially supply the north area of the Township.

The source and the quality of water in the Township of Camden is the same as it is in the Townships of Sombra and Chatham.

The Township of Moore is well serviced at the present time by the West Lambton System. However, the design of the proposed system will permit the Township to connect to the Lambton-North Kent System in the future.

The works to provide a source to Walpole Island, at an estimated 1990 cost of \$700,000, have been eliminated from the proposal as a result of this municipality's decision not to participate in the project. It is the Board's understanding that the reason for the withdrawal is that the construction of the Lambton-North Kent System may reduce the ongoing and contemplated initiatives to reduce spills and clean up the St. Clair River.

The primary objective of the Lambton-North Kent System is to provide a secure, long term supply of good quality water to the participating municipalities. There are two facets to the security element. The first facet is the removal of the hazards from spills from industrial operations in Chemical Valley by the use of an upstream source - Lake Huron. The second facet is the security of the water supply by use of storage and other facilities which will ensure an

adequate supply in peak periods and emergency situations. This latter facet will result from the upgrading and expansion of the West Lambton System and the design features of the Lambton-North Kent System.

The MOE has compiled a list of approximately 550 spills in the St. Clair River in the period from January 1986 to the end of May 1992. This includes 25 spills in the 1992 period. It is conceded by the MOE that all of these spills did not adversely affect the water supplies from intakes to the south of Chemical Valley from the standpoints of health and/or aesthetics. The MOE predicts that about 19 spills will occur annually which probably will "impair" the St. Clair River as a source of drinking water. The number of precautionary shutdowns of intakes until the impacts of any particular spill are determined could substantially exceed the number of spills that actually impair the water quality of the River.

According to the General Manager of the Wallaceburg Water Commission, who was subpoenaed to give evidence by the Town of Dresden, the severity of a spill is measured by the time required for the contaminating substance to flow past the intake. If a shutdown is of a duration that would totally deplete the reserve water supply and cause the water supply system to run dry, the effects could be devastating. There would not be any fire fighting capability. Also, empty water lines can attract bacterial contamination which requires special treatment to counteract.

In the interim, if these measures to ensure the safety of the water supply have to be taken, residents must be warned of the dangers of the contaminated water system which in itself is a difficult task. It may again be necessary to truck water into the area. According to the General Manager of the Wallaceburg Water Commission, a number of closures as recent as 1992 were of a duration that stretched to the limit the reservoir capacity of the Town of Wallaceburg. He acknowledges the initiatives of the MOE and the initiatives in Chemical Valley to protect the St. Clair River from spills by the development of spill-proof plant facilities. However, he states that the implementation of these measures will take a number of years and over this period the St. Clair River will remain vulnerable. He notes that the measures being undertaken to spill-proof industries may not protect the St. Clair River from some disastrous spill which may require a longer shutdown than those experienced in the past bringing with it the adverse impacts described. In his opinion, the problem of spills has not been solved.

A vital feature of the design is the provision of a sufficient water supply to meet peak demands and emergency situations regardless of the source of supply. It is the opinion of the Director of Engineering of the Town of Wallaceburg that water storage should be increased to protect

against shutdowns from spills. His comments were made in the context of the Chancel Ecarte as the source of water supply.

Dillon recommended that 20 - 25 percent for inflation should be added to the estimated 1990 capital costs of \$43.8 million (Table 5.7 quoted above). The Board notes that adding 20 percent of \$43.1 million (which excludes the 1990 costs of \$700,000 applicable to Walpole Island) results in a total estimate of \$51.7 million and a 25 percent increase would take the costs to \$53.9 million. These figures should be compared to the MOE 1994 cost figure of \$59.6. The MOE 1994 cost figure of \$59.6 includes \$1.0 million for land acquisition and \$3.3 million for interim financing.

According to the MOE's financial officer, the estimated inflation rate of 7 percent compounded annually, which is part of the 1994 \$59.6 million cost estimate, is conservative in that annual inflation levels of between 4 percent and 5 percent are more likely to prevail during the period of construction. Similarly, for the capital debt to be amortized over 30 years, the carrying charges have been calculated on the basis of an 11 percent rate which approximates the 10 percent cost of borrowing by the Province in 1992.

The existing West Lambton System debt, which has been carried by the West Lambton System and East Lambton System municipalities and the debts applicable to the upgrading and expansion of the West Lambton System have been allocated on the basis of the flows shown in the Summary of Debt Allocation already described in these Reasons for Decision. It is predicted that 16 percent of the production will be required to serve the Lambton-North Kent System and, if this prediction is accurate, it will be liable for 16 percent of the aggregate debt of these works. The allocation of the Lambton-North Kent System debt of \$4,125,000, also shown in the Summary, is based on the design costs of future municipal requirements. According to the MOE's financial officer, this allocation was fixed by agreement amongst the participating municipalities.

The proposal is that the Lambton-North Kent System municipalities will purchase water from the MOE at rates per 1000 gallons that will vary from time to time. These rates will be based on the amounts necessary to pay for the ongoing costs of the production of the water; paying off the existing debts and those incurred for the existing West Lambton System; the debts attributable to the Lambton-North Kent System; and for a reserve fund. This rate is known as the wholesale rate. For the Towns of Wallaceburg and Dresden and the Townships of Chatham

and Camden, the rate is made up of a primary rate and secondary rate, both of which are common to the municipalities.

The components of these rates have been set out in the Reasons for Decision under the heading Calculation Of Wholesale Water Rate. The estimated wholesale rate for 1994/95 is 190.11 cents per 1,000 gallons, made up of a primary rate of 133.50 cents (which includes all the charges to supply the Lambton-North Kent System municipalities) and the charges for distribution of 56.61 cents per 1,000 gallons.

The Township of Sombra will continue to pay the West Lambton System primary rate and the secondary rate from which its debt allocation for the Lambton-North Kent System will be recovered. The Town of Dresden, the Townships of Sombra, Chatham, Camden and the Township of Moore do not oppose either the method of determining the wholesale rate or its estimated level of 190.11 cents per 1000 gallons for 1994/95. In the opinion of the two consultants from Dillon and the MOE's financial officer, the wholesale rate of 190.11 cents is a reasonable one. These opinions, however, are not shared by the Town of Wallaceburg or the Wallaceburg Industrial Association.

The General Manager for the Wallaceburg Water Commission advised that the Town had a range of rates for residential users and industrial/commercial users for the 1991 year. Residential rates based on usage per 1000 gallons ranged from \$2.11 to \$2.54. The industrial/commercial rates were based on a "block" system which started at \$2.97 per 1000 gallons and reduced as consumption increased to \$1.26, the lowest rate. Assuming no significant change in operations and that inflation will increase at the rate of 4 percent a year he projected that the Town's average water rate of \$2.08 in 1991 would increase to \$2.43 in 1995. He also projected his estimate of the cost of water in 1995 with the Lambton-North Kent System in place. He used a wholesale rate of \$1.98 instead of the wholesale rate of \$1.90 calculated by the MOE to compensate for what he considered might be underestimates of the projected consumption of 350 M.G. for the Town of Dresden in Lambton-North Kent System estimates. On the basis of the \$1.98 wholesale rate the Lambton-North Kent System would be \$3.29 which is a 35 percent over the projected \$2.43 rate for 1995.

In an independent calculation the Director of Engineering and Planning Services for the Town calculated that the rate would increase to \$2.46 in 1995 without the Lambton-North Kent System and to \$3.33 with the system in place.

The Board will return to the impact of the proposed development on the Town of Wallaceburg when it discusses the case for the Town and the Wallaceburg Industrial Association.

The Townships of Sombra, Chatham and Camden support the Lambton-North Kent System, but are unanimous in their position that, because the West Lambton System and Lambton-North Kent System will be owned by the MOE, no part of the debt structure of any of these works should impair their respective debt capacities. The Township of Camden will carry an estimated debt of \$388,010. According to its auditor, Camden has a debt capacity at December 31, 1991 of \$962,700 and does not have any large capital projects on the horizon. The Township of Chatham is allocated an estimated debt of \$775,290 and has a debt capacity at December 31, 1991 of \$3,053,906. The Administrator states that there are no future projects that would impact the debt capacity to any extent.

In the case of the Township of Sombra the debt capacity is \$1.1 million excluding a sanitary sewer project of \$1.4 million which has received the approval of the Ontario Municipal Board. The estimated debt that the Township will attract is \$1,592,860. Its Administrator acknowledges that the debt exceeds the present debt capacity and that there is a potential problem if sufficient debt is not retired to allow for the Lambton-North Kent System debt. According to Exhibit 38, the amount of \$1,592,860 includes \$335,272 of the original West Lambton System debt which the municipality has been carrying. This debt would be somewhat reduced as a result of being reallocated to include the Towns of Wallaceburg and Dresden and the Townships of Chatham and Camden.

The Township of Moore submits that all of the municipalities' concerns will be addressed by the execution by the Minister of the Environment of the Agreement previously referred to in this decision.

With respect to the Town of Dresden, an engineer with the MOE's Utility Operations Section who was involved with the facilities in the Town over a recent ten year period, testified that the Sydenham River is an inappropriate source of drinking water. Agricultural run-off and periods of high turbidity reduce the water quality below the health and aesthetic objectives of the Province's Drinking Water Surveillance Program. The Town's water treatment plant was built in 1961 and the standpipe was added as part of an expansion in 1971. A major food distributor in the Town has a canning plant and some water treatment facilities. During the canning season, the water demand has exceeded 4.0 mega litres a day. The water treatment plant capacity is 3.0 mega litres a day. It is his understanding that the MOE has imposed a freeze on development

because of the excessive demands on the water treatment plant. He was unsure of the current status of the freeze.

Present and anticipated future demands on the water treatment plant will require it to be significantly upgraded. In terms of 1992 dollars these costs are estimated to be in the area of \$3.5 million. This estimate is based on the 1986 costs of \$2.770 million updated in accordance with the Consumer Price Index.

His Worship, the Mayor of the Town of Dresden, confirmed the problems of the effect of agricultural run-off on the Sydenham River and the present lack of capacity in the water supply. His understanding is that the present debt capacity is approximately \$2.7 million. In his opinion, the Town will not have any major capital expenditures in the next five to ten years as a result of the recently approved capital works program. The Mayor is concerned that the present debt capacity is only a little better than half of the estimated debt of \$5,248,425 that the Town will incur for the Lambton-North Kent System. The officials of the canning plant have been advised on an ongoing basis about the proposed development and the projected impact on water rates and they support the development. At a project cost of \$43.1 million the Town would not face a large increase in water rates. If it goes to what the Mayor describes as the upper limit, the increase in rates would be near to 20 percent.

The estimated cost of the proposed works to the Town of Wallaceburg is \$8,521,343. The Director of Engineering and Planning Services for the Town, whose evidence has been discussed in connection with the projected increase in the Town's water rates, is responsible for the management of a large part of the Town's works which involve major capital expenditures. His concern is that, according to the Town's Treasurer-Administrator, the capital debt to be incurred for the Lambton-North Kent System would exceed the 1992 debt capacity of \$6.0 million by \$2.5 million. This will totally fetter capital works required to be in place over the next five years. The alternatives are to defer the project or to increase taxes to raise an estimated \$4.0 million for capital expenditures over the next ten years. The financial officer is also concerned with the increase in tax arrears which is weakening the financial health of the Town.

In a report to Council dated April 30, 1992 (Exhibit 45) concerning the Wallaceburg Industrial Association-Waterline Submission (discussed later in these Reasons for Decision), water storage is an issue to be considered. It states that current treated water storage is 1.3 MG and that the Wallaceburg Industrial Association and the Town engineer propose that this storage be increased to 4.0 MG to provide two day maximum storage capacity. Contrary to the position of the

Wallaceburg Industrial Association that untreated water storage is not required, the report states that untreated water storage is required not only for reserve capacity but also to address contamination problems. The report goes on to state that if spills continue, untreated water storage is required to maintain the quality and integrity of the water supply.

In a memorandum to Mayor Wesley, dated March 12, 1992 (Exhibit 46), the Town engineer suggested that the Town could anticipate a rate increase from \$2.46 to \$3.335 per 1000 gallons if the Lake Huron option was adopted and if the status quo option was adopted the \$2.46 rate would rise to \$5.80. The \$5.80 cost results from an upgrade of the existing facilities in the Town of Wallaceburg. The Town engineer stated further that he used cost figures from various sources to calculate these rates and he assumed that there would be a 15 percent subsidy from the Province. On reflection he stated that if the Lambton-North Kent System was in place and if the Town of Wallaceburg no longer had a water treatment plant there would still be a cost factor of \$1.55 or \$1.56 which, added to the Lambton-North Kent System wholesale rate of \$1.90, would bring the rate to approximately \$3.47. It is noted that the Town engineer used a 12 percent interest rate and a 5 percent inflation rate in his calculation as opposed to the 11 percent and 7 percent rates used in the calculation of the MOE.

The ESR for the Lambton-North Kent System (Exhibit 13) describes the phasing of the development as follows,

5.1.13 Phasing of the System

Development of the proposed undertaking is planned to be carried out in three distinct phases.

- Phase I

Phase I will include the proposed 600 mm (24in.) diameter watermain from the Wallaceburg Water Treatment Plant site to the existing standpipe at Dresden. Also included will be the proposed 30 ML reservoir at the Wallaceburg W.T.P. site. For structural reasons, the substructure of the proposed new pumping station (adjacent to the reservoir) will be built, coincidental with the reservoir, but the station will not be equipped during Phase I. The interim supply to Dresden will be accomplished using existing spare pumping units at the Wallaceburg (sic) W.T.P. together with minor piping modifications.

Completion of these facilities will allow improved security of supply to Wallaceburg through increased treated water storage. Dresden will benefit in the interim from improved water quality as is available from Chancel Ecarte via the Wallaceburg W.T.P. With the increased storage of treated water at Wallaceburg, Dresden consumers will also be protected against any possible shutdown of the treatment facilities, should a chemical spill happen in the source of raw water.

With the supply of potable water from Wallaceburg to Dresden, operation of the Dresden Water Treatment Plant can be terminated.

During this phase, only sufficient water to meet the needs of Wallaceburg and Dresden will be available from the system. Service to consumers in Chatham Township, Walpole Island, and Camden Township will not be available until subsequent phases of the undertaking are completed.

The Lambton-North Kent Water Liaison Committee, at their meeting of 29 May 1990, passed a resolution requesting the Ministry of the Environment to proceed immediately with Phase I of the project, with completion by December 1991.

- Phase II

Phase II will introduce water from the West Lambton Water Supply System into the North Kent water distribution system.

Works to be carried out in Phase II will include:

- i) The 750 mm diameter pipeline from a connection to the existing 600 mm diameter watermain on the road between Lots 27 and 28 of Moore Township at the boundary between Moore and Sombra Townships, to the new reservoir constructed in Phase I at Wallaceburg W.T.P. site.
- ii) Completion of new Wallaceburg Pumping Station adjacent to the 30 ML reservoir, completed in Phase I.
- iii) A 90 ML reservoir near Corunna on a site at LaSalle Road and the Chesapeake and Ohio Railway west of Highway No. 40.
- iv) A booster pumping station at the Corunna Reservoir, with pumping equipment to serve Moore and Sombra Townships, as well as the North Kent service area, and also to be available for "back-pumping" to Sarnia during emergency or peak demand periods.

Completion of the works identified as Phase II will provide water from the Lambton Water Treatment Plant to Wallaceburg and Dresden, and permit

removing the Wallaceburg Water Treatment Plant and associated raw water intake and pumping facilities from service. Construction of the Corunna Reservoir and Pumping Station will not only facilitate delivery of Lake Huron water to North Kent, but will provide increased security of supply for the existing West Lambton System, including Sarnia and Point Edward, and will also improve distribution system pressures in the service area south of the reservoir and pumping station (Moore and Sombra Townships).

Placing the Corunna Reservoir and Pumping Station in service will require that all of the operational control facilities be available at Corunna and Wallaceburg sites to maintain proper distribution system pressures and to optimize the use of storage capacity available in the reservoirs.

Once Phase II works are completed, it will be possible to provide service to consumers abutting the transmission mains (except along new Highway 40) in Sombra, Chatham, and Camden Townships.

- Phase III

Works envisaged to be constructed in Phase III will complete the undertaking identified as Lambton-North Kent Water Supply System. Phase III works include:

- Extension of the trunk watermain on Highway 40 north from Moore/Sombra Township boundary to connect with the existing 750 mm diameter watermain east of Mooretown. The new watermain on Highway 40 north of Sombra Township to Mooretown will be 900 mm diameter.
- A 300 mm diameter loop watermain and in-line booster pumping station from Highway 40 to the Port Lambton grid via County Road 1.
- A 250 mm diameter trunk watermain from Highway 40 east to Wilkesport via Sombra Concession Road 12.
- A 2 ML elevated tank on the preferred site in northeast Wallaceburg, together with a 300 mm diameter connection to the existing grid via Main Street.
- Emergency pumping facility at base of existing Dresden standpipe.
- Provision of 300 mm watermain extension (approximately 250 m length), complete with terminal chamber and metering facility on Dufferin Avenue on east side of Chanel Ecarte to facilitate future connection by others to the existing grid on Walpole Island.

Completion of the works included under Phases I, II and III, as well as the proposed expansion of Lambton W.T.P. being addressed as a separate project, will meet the projected needs of the service area to the year 2015.

The position of the Wallaceburg Industrial Association, which has the support of the Town of Wallaceburg, is that a scaled down development should proceed which would be substantially in the form of Phase I as described in the ESR for the Lambton-North Kent System. This development would satisfy the needs of the Town of Dresden by supplying it with treated water from the Wallaceburg Treatment Plant. The source of supply would continue to be the Chancel Ecarte. The expanded reservoir, the modification to the water treatment plant, and the use of existing spare pumping units would provide a secure source of supply to both the Towns of Wallaceburg and Dresden, including times of shutdowns because of spills. This development is costed at \$34.9 million, adjusted for inflation. The Wallaceburg Industrial Association assumes that the Province will fund 85 percent of the cost which is the approximate level committed by the Province for the Lambton-North Kent System. There is no longer a demonstrated need for health reasons for the project, which, including the upgrading and expansion of the West Lambton System works, is in the order of \$129.0 million, to proceed because of the danger of spills. The situation with respect to spills from Chemical Valley is much improved. There is no substantive evidence of poor water quality in the Town of Wallaceburg which has in place acceptable measures for water supply in times of emergency. The Association does not feel that the control of the water system should be vested with the MOE.

On August 17, 1992, Council of the Town of Wallaceburg passed a resolution which generally supports the form of development proposed by the Wallaceburg Industrial Association. The resolution states in part,

BE IT THEREFORE RESOLVED:

1. That the Council of the Corporation of the Town of Wallaceburg fully support proceeding with Phase I of the Lambton/North Kent Area Water Scheme, the interim supply of potable water to Dresden from the Wallaceburg Water Filtration Plant, and that such project proceed as soon as possible.
2. That Phase II and III of the Lambton/North Kent Area Water Scheme be deferred until such time as:

- (1) The impact of debt associated with Phase II and III on Lambton/North Kent participants is known and the regulations under Bill 165 are written, reviewed and approved and the Town of Wallaceburg is satisfied that such resolves their concern respecting the debt associated with this project,
- (2) The Wallaceburg Industrial Association proposed alternative for a Wallaceburg Plant upgrade and expansion is considered, reviewed and commented on by the Ministry of the Environment,
- (3) The need for expansion of the West Lambton Water Filtration Plant is known,
- (4) We hold further discussion with Walpole Island First Nation Band Council respecting their decision not to join the Lambton/North Kent Area Water Scheme and how we can work with them to further efforts to clean up the St. Clair River.

The City of Sarnia-Clearwater takes the position that the West Lambton System upgrading and expansion and the proposed Lambton-North Kent System are, in the words of counsel for the City, inextricably linked. What constitutes the upgrading and expansion of the West Lambton System is discussed in the ESR which is quoted earlier in the Reasons for Decision.

The City contends that the 16 percent of the expanded capacity, which it is estimated that the Lambton-North Kent System will use, is a major component of the need for the expansion. The City has instituted a successful program of water conservation by the use of a metering program, a water use by-law and the imposition of an environmental surcharge, the effect of which has reduced water demand to a level that will allow any expansion to be postponed for a considerable period. According to the calculations of the Commissioner of Works, the reduction in water flows was 35 percent less when the flows for the months of July 1988 and July 1991 were compared. When the maximum day pumpage rates were compared in these months the reduction is in the order of 38 percent. In addition, the population projections used by Dillon to calculate demand are overstated. The Commissioner's estimate is that the existing net capacity of the 156.5 mega litres per day, without the demands of the Lambton-North Kent System, will not be exceeded until the year 2011.

The Dillon consultant states that if the expansion costs did not include the provision of the Lambton-North Kent System water supply, that looking at costs from that standpoint only, a reduction of \$2.0 million might be achieved. He stated further that cost effectiveness results

from taking advantage of certain design parameters. In this case the proposed design will provide a capacity level sufficient to supply, but independent of the needs of the Lambton-North Kent System. On the matter of the postponement of the West Lambton System works because of the water conservation measures, he is of the opinion that if the City's figures as to the reduction in usage are accurate, that this factor might indicate that the increased capacity is not required for a few years.

The Commissioner of Finance and City Treasurer for the City of Sarnia-Clearwater advised that the balance of the City's debt at December 31, 1991 was \$52.0 million. The City has planned capital projects which could exceed the debt capacity without taking into consideration the \$31.0 million the proposed West Lambton System works would add to the City's debt.

As part of the hearing, a Public Forum was held in the evening, to provide members of the public who could not attend during the day, an opportunity to put their views and concerns before the Board. To assist the public, Mayor Wesley attended and placed in evidence the results of a mail and newspaper survey, tapes of a 24 hour open line telephone survey and letters he had received. These collectively involved over 900 responses, of which 88 percent were not in favour of the proposed development. The public objections and concerns are based mainly on what might be described as cause and effect. The problem is caused by spills emanating from Chemical Valley. The public do not understand why water rates should be increased as a result of development which is principally required to solve a problem which they did not create. The proposed works are too costly in a time when many ratepayers are facing difficult financial times. Some members are also concerned with the impact of increased water rates on their industrial employers. They feel that the long term nature of the debt is going to place an insurmountable burden on future generations. They feel that the loss of local ownership of the waterworks would deprive them of a voice in the operation of the system and its costs. Their understanding is that the frequency of spills is decreasing, and if the new works are undertaken, the incentive of the industries to reduce spills will diminish. They question whether the Lake Huron source is any better than the Chancel Ecarte. The Town of Wallaceburg with its existing works has some growth capacity. They feel that they are being asked to carry part of the burden for development in the other participating municipalities. Notwithstanding their opposition to the works in general, they are sympathetic to the water problems of the Town of Dresden and are supportive of some solution.

The members of the public, in support of the Lambton-North Kent System, give as their reasons: that the pipeline is the only long-term solution for a safe secure supply of water free from the

hazards of spills from Chemical Valley; and that the longer construction is delayed the greater the cost. The rural area around the Town of Dresden does not have any good groundwater in sufficient supply. The use of the Sydenham River as a source of drinking water is unacceptable for health reasons.

Mr. Leslie Hosier, a participant in this matter, became involved with this hearing as a result of his interest in securing a piped water supply for the Township of Bosanquet. His interest was sparked by the knowledge that the proposed works are to be in areas that already enjoy piped water supplies. He attempted to obtain information about these works, but his requests of various agencies were not met. He feels a responsibility to raise before this Board certain important questions. His presentation touched upon a wide variety of subjects such as: other public uses of the funds committed by the Province to this project; conflicting government policies which affect water quality; various studies directed at the clean up of the St. Clair River; and child poverty in the area. He contends it is more popular and easier to blame Chemical Valley for the pollution of the St. Clair River rather than the use of pesticides, herbicides and fertilizers that find their way into the Sydenham River and from there into the St. Clair River. He questions a number of matters related to the proposed development which are contained in the ESR of the Lambton-North Kent System and the ESR of the West Lambton System, which the Board has stated are not before it. These matters include the authority and constitution of the Local Liaison Committee; the objectivity of the consultants; the levels of public participation; the use of Grand Bend as a benchmark for public attitudes on water quality; poor representation and agency participation in the ESR process; a reduced time frame for the input into the ESR's; and the conclusions drawn from a telephone survey as well as the Public Information Centres.

Mr. Hosier questioned whether the Lake Huron source is superior to the Chancel Ecarte source. His concerns are raised by what he understands are higher levels of such minerals as copper, mercury and aluminum in the headwaters, the return of backwash effluent from the Lambton Water Treatment Plant and the dumping of garbage and dredging of sediment in the U.S. waters above the intake of the Lambton Water Treatment Plant. Like other opponents he questions the need on the basis that the Chemical Valley industries are taking measures in an attempt to provide a spill proof environment. This, he couples with other initiatives such as the goals of the St. Clair River Remedial Action Plan.

The Board has referred to only a sample of the matters, issues and concerns raised by Mr. Hosier in the scope of his presentation. However, as previously stated, the Board may only consider those matters which directly relate to the subject applications.

The Commissioner of Works for the Township of Moore stated that subject to the construction of the proposed booster pumping station and reservoir near Corunna, that the needs of the Township will be adequately served for a 20-year to 25-year period. Initially, the Township was not part of the planning for the Lambton-North Kent System, but as matters progressed, Dillon requested information about present and future water demands and any technical concerns with respect to the impact of the proposed works on the West Lambton System.

The major concern was the possible disruption of existing services during the construction period because the location of the new works was unknown. A further concern was the possibility of the need for increased pressures for the new works to the detriment of existing mains in the Township. The Township did not feel that the proposed development would benefit the Township and, therefore, there would not be any financial implications. In the fall of 1990, at the time the indicated proposed funding by the Province was 75 percent of the cost, the Township was advised that \$4.0 million was to be the total cost allocated to it, which in terms of the 75 percent funding level, equated to a share equalling \$1.0 million. After discussion with the MOE as to the quantum of the cost allocation, the Township learned in either December of 1991 or the following January that the net cost allocation had been reduced to \$280,000. This amount was later reduced to \$80,000, which is the Township's share based on the \$4,125,000 net allocation to the participating municipalities for the Lambton-North Kent System.

When asked whether the Township of Moore had any objection to the proposed expansion of the West Lambton treatment plant, he stated that the member municipalities should be metered, and this action would reduce the peak demands and in turn, the need for expansion in the near term. The Township objected to the proposed use of activated carbon filtration because of the cost. He would like to see the construction of the booster pumping station at Corunna proceed separately. On the basis of these recommendations, the Township can support the plant expansion when it is required. In his opinion, every means should be taken to reduce peak demands, including the commitment of funding to this endeavour.

The Manager of the Project Section and the Assistant Director of the Project Engineering Branch, who has been associated with the project for seven years, stated that in June 1985 the MOE met with the Towns of Wallaceburg and Dresden and the Townships of Chatham and

Sombra. The municipalities differed somewhat as to the source of supply. The result of the meeting was that the MOE was asked to do a feasibility study and the Local Liaison Committee was formed. Subsequent to a major spill in the St. Clair River, the Local Liaison Committee selected the West Lambton System source. However, the MOE agreed to examine all water supply options. He confirmed the evidence already discussed with respect to the terms of reference and the selection of the Dillon firm. The study was approached on the basis that it would follow the requirements of a Class EA under the *Environmental Assessment Act*. Each stage of the study was referred to the Local Liaison Committee for approval and received unanimous consent for each stage. The Province initially indicated it would fund up to a level of 75 percent of the cost. The first water rates were based on this amount of funding. Subsequently, the Province raised the funding assistance to 100 percent of the first \$43.1 million. The increased funding was conditional on the use of a uniform water rate, which condition was accepted by the Local Liaison Committee. From the outset, the development of the Lambton-North Kent System was to be an agreement area and not a public water service area as defined in the *Ontario Water Resources Act*. This agreement area is to be managed through the use of a Master Agreement with each of the participating municipalities. He noted that the East Lambton System is an agreement area and the West Lambton System is an area of public water service. There are only three areas of public water service in the Province. All other areas have been developed through agreement.

A Preliminary Agreement was entered into which provided the mechanism to move from a feasibility study into the definition of preferred alternatives.

In his opinion, a change in the raw water source would be a significant change in the undertaking sufficient to require that, under the Class EA process, all alternatives be re-examined.

He considers the proposed water rates to be reasonable in the Provincial context. The Town of Wallaceburg will still have control over the water rates charged to residential, commercial and industrial consumers.

When asked about the intent of the MOE concerning the expansion of the West Lambton System, he stated that the expansion must proceed, but there is a question as to the timing. The expansion will proceed regardless of the Lambton-North Kent System development. He reconfirmed that the present level of funding is conditional on the use of a uniform rate and this condition was imposed at the time the higher level of funding was made available. In the case

of the Town of Wallaceburg, the use of the uniform rate will raise existing water rates, but not above a reasonable level. The participating municipalities were made aware that they would pay a primary rate to cover participation in the West Lambton System. The manager thought that the Town of Wallaceburg understood that it and other municipalities would be required to participate in the West Lambton System debt, but he now concedes that there may have been a misunderstanding. As the Board has stated earlier at the commencement of this hearing, the makeup of the debt to be incurred and the terms of the funding were clear to all parties.

When asked about a reduction in public participation, he acknowledged that in order to meet the deadline for the publication of the first report, one meeting was held instead of two meetings as was the case for the other reports. However, he pointed out that there is not specified number of meetings under the *Environmental Assessment Act*. He is satisfied with the number of opportunities for public participation, which meetings were held in the Towns of Wallaceburg and Dresden.

On the question of Provincial subsidies, 15 percent is the norm, and anything beyond this percentage requires Cabinet approval. Before the special funding grant for the Lambton-North Kent System, the highest grant to his knowledge has been 75 percent.

The justification to support the initial 75 percent level of funding was the need to provide the Town of Dresden with an alternative water source.

When asked about the establishment of an agreement area, he advised that the provision in the *Ontario Water Resources Act* for public water service areas are retained for situations where there is a lack of action by a municipality. He made the point that in a public water service area like the West Lambton System, the MOE practice has been to consult the municipalities about proposed works, although it is not a legislative requirement.

The Lambton-North Kent System may impact on the timing of the West Lambton System expansion, but not on its sizing. The data available on the effect of the water conservation measures of the City of Sarnia-Clearwater is not sufficient to convince him to scale down the design of the planned expansion of the West Lambton System. Five or six years of data should be considered, and ten years of data would be preferable. He supports the evidence of Dillon on the economies of scale based on modular design.

When asked about the impact on the Master Agreement if any of the participating municipalities decided not to enter the Master Agreement, he stated that without the Town of Wallaceburg, the Lambton-North Kent System would not proceed.

DECISION OF THE BOARD

The proponent asked the Board to make two Orders which are necessary if the undertaking known as the Lambton-North Kent System is to be constructed. The first Order would amend the Lambton Area Water Works Order to permit the sale of water to the agreement area. The works are to be defined and operated pursuant to the terms and provisions of a Master Agreement between the Minister of the Environment and each of the participating municipalities. The second Order would approve the application to the Ontario Municipal Board for Capital Expenditure of each of the Townships of Sombra, Chatham and Camden and the Towns of Wallaceburg and Dresden to permit these municipalities to enter the Master Agreement. This Master Agreement contains provisions to pay certain capital, operating and reserve costs attributable to the undertaking.

The proponent does not contest that the Chancel Ecarte is a good source of raw water. What is at issue is the danger from spills. The evidence supports a finding that a spill of toxic materials could cause polluted water to either enter the Wallaceburg treatment plant undetected or require a shutdown for a period that would allow time for bacteria to develop. These undesirable situations are still a reality. The Board makes this finding with the knowledge of the co-operative efforts to clean up the St. Clair River undertaken by the Province, industries in Chemical Valley, and various agencies, boards and commissions. These efforts include monitoring spills, making industrial sites and works spill-proof, and other on-going and contemplated initiatives regarding spill detection, containment, and prevention. There is not evidence to support the contention that the construction of the Lambton-North Kent System will in any way diminish these programs. The need for the proposed undertaking may be considered from the perspective of spills, which have been discussed. In addition, it provides for a piped water supply to parts of the Townships of Sombra, Chatham and Camden to meet their immediate requirements and to provide them with expansion capability. It also is intended to solve the Sydenham River water supply problem for the Town of Dresden.

The evidence of poor quality groundwater sources in the Townships and the requirements of these municipalities supports the provision of a secure water supply. The need for the provision of a new source of supply for the Town of Dresden is substantially unchallenged and uncontradicted and is accepted by the Board.

The Lambton-North Kent System is not being put forward by the proponent as a perfect solution. It is considered that the Chancel Ecarte and the Lake Huron sources are equally susceptible to pollution from such various activities as power boating or even a catastrophic shipping disaster. The intent is to provide as safe a source as is reasonably possible from the standpoints of public health and safety, and cost. Notwithstanding, (1) the matter of dredging in U.S. waters above the Lake Huron intake, (2) the questions raised regarding apparent high levels of some minerals at the intake and, (3) the discharge of effluent from the Lambton water treatment plant to the St. Clair River, there is little or no evidence to convince the Board that the proposed water supply is not safer and more secure than the sources in the lower St. Clair River. The evidence of the representative of Dillon is that high mineral levels can be dealt with, that in the upgrading and expansion of the West Lambton System, effluent discharge will not be returned directly to the St. Clair River, and that dredging in U.S. waters no longer takes place in that part of Lake Huron. His evidence satisfies the Board on these points.

The Board accepts the evidence of the MOE that the upgrading and expansion of the West Lambton System will continue to proceed and will be completed as planned regardless of any decision on the Lambton-North Kent System. The cost of this system, which may be directly attributed to the Lambton-North Kent System, is estimated to be approximately \$2.0 million.

The opponents suggest the design is flawed. They point to an overstatement of the projected flows for the Town of Dresden and excessive population projections. In the opinion of the Wallaceburg Industrial Association, the storage capacity for the Town of Wallaceburg is over-designed. Evidence does not convince the Board that the undertaking is excessive in design or cost in the context of the requirement to provide for future water supply needs over a span of from 20-25 years. The Town of Wallaceburg and the Wallaceburg Industrial Association are concerned with the loss of control of the total rate structure under the water agreement area form of arrangement. In addition, they are concerned with the effect on the water rates which are to be based on all of the debts and costs arising from the West Lambton System and the Lambton-North Kent System. The evidence of the MOE, the representative of the Wallaceburg Water Commission, and the Town engineer, is that water rates will be comparable whether the Town continues to own its works and has to provide for the necessary upgrading and increased

capacity, or whether the Lambton-North Kent System is built. This evidence is accepted by the Board. There is no evidence to support the position of the Wallaceburg Industrial Association that the proponent cannot effectively operate a water utility under an agreement area arrangement. A number of them are in operation in the Province. Even under this arrangement, the local municipality fixes the rate structure for its residential, commercial and industrial consumers.

The Board cannot vary the undertaking as described in the ESR for the Lambton-North Kent System to the extent recommended by counsel of the Town of Wallaceburg and the Wallaceburg Industrial Association. The undertaking is to be constructed in three phases which are not independent works. Phase I is intended to provide an interim water supply to the Town of Dresden from the Town of Wallaceburg and to improve the security of the water supply to increase treated water storage. Phase I or a modified form thereof would not achieve the goal of establishing a water supply free from the hazards of a spill from the Chemical Valley industrial complex. The special grant is conditional on the acceptance by the participating municipalities of the undertaking with its debts and obligations and completion of the undertaking in the three phases specified.

The Board stated earlier in the Reasons for Decision that neither the ESR for the West Lambton System upgrading and expansion nor the ESR for the Lambton-North Kent System were before the Board. The corresponding Environmental Assessments have been approved. The Board notes that the sitings of the works and the routings of the mains are for the most part on lands with existing development and along rights-of-way of existing roadways. The three crossings of the Sydenham River were raised in the evidence in the context of cost and extended to the question of environmental sensitivity. The Board is satisfied that any incremental costs attracted by the engineering technique that ensures no disturbance of banks, vegetation and the water course is necessary and warranted.

At the closing of the hearing, counsel for the MOE advised the Board that amendments had been made to the Master Draft Agreement which did not change the intent or essence of the predecessor Master Draft Agreement. The Board also learned through the evidence of the MOE that the Preliminary Agreement which the participating municipalities were permitted to enter by an Order of the Ontario Municipal Board of November 2, 1990 had been subsequently amended. The amendment removed as a term, the requirement that each of the participating municipalities pay their share of 25 percent of the preliminary costs incurred by the proponent in the event that the development did not proceed. Counsel for the Town of Wallaceburg

submitted that the Board should not consider the applications and the whole matter should be put before the respective municipal councils for their consideration.

The Board does not accept this submission. The change in the Preliminary Agreement removed any penalty the municipalities could have attracted if the project did not proceed. In addition, clause 3 of the Preliminary Agreement provides that the Master Agreement may be changed as agreed upon.

The Board's reading of the Master Draft Agreement in its original and amended forms indicates that it does not contain any changes that would impact upon this proceeding or prejudice the position of any party.

All the participating municipalities, regardless of their positions with respect to the proposed works, oppose a reduction in their debt capacity for development they are not financing and will not own. Bill 165 has resulted in the enactment under the *Municipal Act* of O. Reg. 710/92 which was effective as at January 1, 1993 and establishes annual repayment limits for municipalities. The Board must consider the subject applications for capital expenditures under this regulation, which includes water works.

The Townships of Chatham and Camden each have sufficient debt capacity to cover their share of the proposed works and do not contemplate any capital projects which would not be covered by the balance of their debt capacities. The Township of Sombra will have no remaining debt capacity and the Towns of Wallaceburg and Dresden will exceed their debt capacities by approximately \$2.5 million in each case. The Town of Wallaceburg states that to carry out required capital works, taxes will have to be increased to \$4.0 million if these projects are to proceed. The Town of Dresden has completed the capital works projects it requires over the next five to ten years.

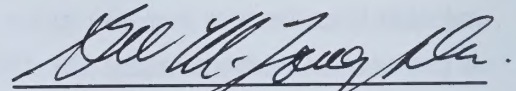
It is submitted that a municipality should not extend itself financially beyond the works that it requires and that it can afford. This principle is difficult not to accept; however, what the Town of Wallaceburg faces is the real possibility of costly expenditures if its water works are contaminated as a result of a toxic spill which, if undetected, could seriously endanger public health and safety. The Town of Dresden already has a potentially hazardous situation as a result of its Sydenham River source of supply. If the Lambton-North Kent System does not proceed, the Townships of Sombra, Chatham and Camden will be left with inadequate groundwater sources. The Town of Wallaceburg will continue to use the Chancel Ecarte source and, failing

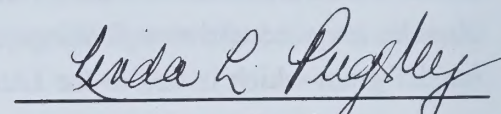
any impairment of its system because of a spill, will require capital expenditures to upgrade and expand its works. The evidence indicates these works will cause rate increases almost equal to those it will attract under the Lambton-North Kent System. There is no solution to the situation the Town of Dresden faces, except to supply it with water from the Town of Wallaceburg. This solution is an interim measure under Phase 1 of the proposed development, and is proposed as a permanent measure under the Wallaceburg Industrial Association solution which has the support of the Town of Wallaceburg. This latter solution is to cost approximately \$39 million and is predicated on receiving a grant of 85 percent from the Province. The evidence of the MOE, which the Board accepts, is that if this solution is to be advanced, the total ESR process must be revisited and new funding established. It is not merely a matter of using part of this special grant which is tied to the Lambton-North Kent System undertaking and nothing else.

Having considered the evidence and arguments, the Board can properly conclude that the risk of spills and the potential impact on the Town of Wallaceburg from the standpoints of health and safety and costs, together with the pressing need to supply the Town of Dresden with a secure water supply, outweighs the consideration of the impairment of the debt capacities of these municipalities and those of the Townships of Sombra, Chatham and Camden. The Board, therefore, approves the amendment to permit the sale of water and will authorize the municipalities to enter the Master Agreement in the revised form. As previously stated, the Preliminary Agreement contemplates that there may be changes in the Master Agreement. These changes are in the hands of the MOE and the participating municipalities with whom the ultimate decision as to whether they execute the Master Agreement rests. It should be understood that the Board's authorization to execute the Master Agreement does not compel them to take this action.

The Order of the Board is, therefore, that the Lambton Area Water Works Order is amended to permit the sale of water to the agreement area described in the Reasons for Decision and further, the Township of Sombra, the Township of Chatham, the Township of Camden, the Town of Wallaceburg and the Town of Dresden are authorized to execute the Master Agreement substantially in the form of Schedule B to this decision.

DATED at TORONTO this 31st day of MARCH, 1993.

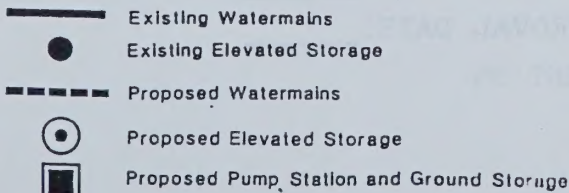

B. W. McLoughlin


L. L. Pugsley



Lambton-North Kent Water Supply Study

ENVIRONMENTAL STUDY REPORT



Phase 1
Phase 2
Phase 3

Proposed Water Supply System

Figure 1.2

Schedule "B" to Preliminary Agreement between Her Majesty the Queen in Right of Ontario as represented by the Minister of the Environment and the Municipalities of Dresden, Wallaceburg, Camden, Chatham and Sombra

LAMBTON/NORTH KENT AREA WATER WORKS

MASTER DRAFT AGREEMENT

MOE's PROJECT #6-0290

OMB's FILE NOS. _____

JOINT BOARD's FILE # _____

JOINT BOARD's APPROVAL DATE: _____

Joint Board's File No. _____

SCHEDULE "A" TO BY-LAW NO.
TOWN OF DRESDEN

OF THE CORPORATION OF THE

OMB FILE NO. _____

SCHEDULE "A" TO BY-LAW NO.
TOWN OF WALLACEBURG

OF THE CORPORATION OF THE

OMB FILE NO. _____

SCHEDULE "A" TO BY-LAW NO.
TOWNSHIP OF CAMDEN

OF THE CORPORATION OF THE

OMB FILE NO.

SCHEDULE "A" TO BY-LAW NO.
TOWNSHIP OF CHATHAM

OF THE CORPORATION OF THE

OMB FILE NO.

SCHEDULE "A" TO BY-LAW NO.
TOWNSHIP OF SOMBRA

OF THE CORPORATION OF THE

OMB FILE NO.

AGREEMENT FOR THE CONSTRUCTION AND OPERATION OF A WATER
WORKS

This Agreement made in eight copies as of this day of
 , 199 .

B E T W E E N:

HER MAJESTY THE QUEEN IN RIGHT OF
ONTARIO AS REPRESENTED BY THE
MINISTER OF THE ENVIRONMENT
(hereinafter called "the Crown")

OF THE FIRST PART

--and--

THE CORPORATION OF THE TOWN OF DRESDEN

(hereinafter called "Dresden")

- and -

THE CORPORATION OF THE TOWN OF WALLACEBURG

(hereinafter called "Wallaceburg")

- and -

THE CORPORATION OF THE TOWNSHIP OF CAMDEN

(hereinafter called "Camden")

- and -

THE CORPORATION OF THE TOWNSHIP OF CHATHAM

(hereinafter called "Chatham")

- and -

THE CORPORATION OF THE TOWNSHIP OF SOMBRA

(hereinafter called "Sombra").

ALL OF THE SECOND PART

(which are hereinafter collectively
referred to as the "Municipalities")

WHEREAS the Municipalities by an agreement with the Crown (the "Preliminary Agreement") dated _____, 19____, have provided for the preliminary work in developing the Lambton/North Kent Area Water Works (the "Works"); and

WHEREAS the Municipalities wish the Crown to provide and operate the Works more particularly described in Schedule "A"; and

WHEREAS the Municipalities have created a Liaison Committee with participation from the Municipalities and the Crown to review the development and operation of the Works; and

WHEREAS each Municipality has passed a By-law authorizing the Municipality to enter into this agreement.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants, conditions, terms and payments hereinafter set forth, the parties hereto covenant and agree with each other as follows:

1. In this Agreement

(a) "Cost" means the cost of the Works as determined by the Minister of the Environment (hereinafter referred to as the Minister) and includes the costs of any works incorporated into the Works, the costs of developing the Works including those costs incurred under the Preliminary Agreement, such as engineering fees and other charges and expenses in connection with construction as the Minister may determine and such financing costs applicable to the Works as the Treasurer may determine and the Minister in his discretion may allocate to the Works.

(b) "Treasurer" means the Treasurer of Ontario and Minister of Economics.

- (c) "West Lambton Order" means the Order issued under the predecessor of Section 43 of the Ontario Water Resources Act as the Section and Order are amended or supplemented from time to time under which Order the West Lambton Works are established and operated.
- (d) "West Lambton Works" means the water works from time to time established pursuant to the West Lambton Order to serve the areas to the north of the areas to be served by the Works.
- (e) "Works" means the water works from time to time constructed, acquired and/or operated hereunder.

Part A - Construction

- 2. (1) The Crown shall construct, acquire or provide, at its own expense, the Works in accordance with Schedule "A" hereto with such amendments as are proposed by the Crown after consultation with the Municipalities.
 - (2) Subject to sufficient capital funds being allocated in the estimates and votes of the Ministry of the Environment the Crown shall cause construction of the Works to be commenced within twelve months after obtaining all necessary approvals, unless such construction is delayed for reasons beyond the control of the Crown and thereafter, to be proceeded with in a substantial and workmanlike manner, in accordance with Schedule "A" attached hereto.
 - (3) The Crown may incorporate into the Works, such water works acquired by the Crown from any of the Municipalities as the Crown determines.
- 3. All property acquired or provided by the Crown for the purposes of this Agreement shall be and remain the property of the Crown until ownership thereof is transferred by the Crown as hereinafter provided.

Part B - Maintenance and Operation

4. The Crown shall, subject to the other provisions of this agreement, manage, operate, control, maintain and insure the Works and shall have the right to shut off or reduce the amount of water supplied to any Municipality in cases of emergency or breakdown or when it may be necessary in maintaining, repairing or extending the Works or any other Water Works connected to the Works, but the Crown shall, when practicable, endeavour to give to the Municipality reasonable notice of intention to shut off or reduce the supply of water.
5. Each Municipality shall, if and as required by the Crown, pass by-laws for the regulation and control of the use of water and the conservation of water within the Municipality.
6. Each Municipality shall not permit any person not located within the portion of the Municipality to which the Works are designed to supply water to connect to or obtain water from the Works, except with the prior written approval of the Crown.
7. (1) A Municipality, except with the prior written approval of the Crown, shall not permit any connection to the Works or the distribution system either directly or indirectly from other sources of supply and shall not permit contamination to gain entrance to the Works or any water works connected thereto in the Municipality.

(2) In the event that either contingency referred to in subsection 1 should occur, the Municipality concerned shall immediately take such steps as may be necessary to terminate such connection or contamination.

8. (1) The Crown may, but only after prior consultation with the Municipalities, permit any other participant, person or persons to connect directly or indirectly to the Works on such equitable terms and conditions as the Crown may think fit, and it shall not be held that the Works contemplated under this Agreement are exclusively for the purposes of the Municipalities party to this Agreement.

(2) For the purpose of subsection 1 the Crown shall have the power to extend, alter or enlarge the Works as it deems necessary provided that no additional capital costs therefore shall be charged hereunder to the Municipalities party to this Agreement without the written consent of the Municipalities and approval of the Ontario Municipal Board.

(3) In the event that the Crown shall permit any other participant, person or persons to connect as aforesaid, or it otherwise becomes necessary to amend Schedule "A" or "B" and the Municipalities are unable to agree on an amendment or any adjustment of accounts the Crown may make the amendment or readjust the proportion payable by the Municipalities and in so doing shall have regard, inter alia, to the amount of capital costs of the Works already paid off, to the age of the Works and to the needs of the party or parties so permitted to connect, and the Municipalities shall have the right to arbitrate the same as though subsection 35(4) of the Ontario Water Resources Act applied.

(4) In the event that the Crown provides service to another municipality by means of the Works the Crown may enter into an agreement referred to in Section 20.

Part C - Amounts Payable to Treasurer

9. (1) In this section

(a) "Interest" means that part of the financing costs allocated to the Works which is not included in Principal.

(b) "Principal" means the Cost excluding Interest.

(2) The Treasurer shall in his discretion determine the financing costs applicable to the Works and the Minister may include such part of them as he determines in Principal.

(3) Each Municipality will pay to the Treasurer of Ontario and Minister of Economics (the Treasurer) in the manner provided in subsection 4 in each calendar year, during the currency of this agreement, commencing with the year in which the date of completion of the Works occurs:

- (a) The Municipality's share of the total cost to the Crown in each year of the operation, supervision, maintenance, repair, administration and insurance of the Works.
- (b) The Municipality's share of the total amount in each year placed by the Minister to the credit of a reserve account for renewals, replacements and contingencies in respect of the Works.
- (c) Equal blended payments on account of Principal and Interest sufficient to amortize the Principal over a period of 30 years in accordance with an amortization schedule to be furnished by the Minister based on the agreed capital debt for each Municipality as allocated in Schedule "B" as amended from time to time.
- (d) Schedule "B" may be amended, subject to the Ontario Municipal Board's approval, by the Municipalities once every five years if a significant variation in consumption occurs from the current basis of allocation.
- (e) Such other amounts as may be provided for under the Ontario Water Resources Act.

(4) The annual charges hereunder shall be paid by each Municipality quarterly or on such other periodic basis as is from time to time determined by the Crown in accordance with the written precept or account of the Minister and the periodic payments in any year may be estimated by the Minister and any amounts necessary to adjust any estimated payment to the actual amount due shall in the case of underpayment be paid with the next quarterly payment or other periodic payment due after the notification of the Municipality by the Minister of the amount of such adjustment or, in the case of an overpayment, may be deducted from such payments.

(5) In each calendar year the Minister shall deliver to each Municipality a statement or statements showing how the charges, adjustments and allocations are made up. Such statements may be combined with the precept or account issued under subsection 4.

(6) In calculating the annual amount due with respect to clause 3(c) the following provisions shall apply:

(a) Until the Principal amount is determined and the amortization schedule prepared the annual amount shall be estimated by the Minister.

(b) As soon as practical after the Principal amount has been determined by the Minister, he will forward to each Municipality an amortization schedule showing the amount of payments on account of Principal and Interest required to be made in each year to fully amortize the Principal during the remainder of the amortization period.

- (c) In the event that after the amortization schedule has been prepared by the Minister, any additional expenses or charges not otherwise provided for in this Agreement are incurred by the Crown, or any item is discovered which has been omitted from or incorrectly included in the calculation of the Principal, then the Principal will be recalculated by the Minister and he will forward a new amortization schedule amortizing the new Principal amount over the remainder of the amortization period.
 - (d) The Minister in his discretion may, at the request of the Municipalities, or where an error is discovered in the amortization schedule, prepare new amortization schedules from time to time, which may reflect a new amortization period or new capital allocations.
 - (e) The annual amount due shall be calculated in accordance with the most recently forwarded amortization schedule if one has been furnished to the Municipality.
- (7) The appropriate share of earnings on any monies held in the reserve account referred to in clause 3(b) shall be allocated and credited to the reserve account in accordance with the Ontario Water Resources Act.
- (8) Interest shall be calculated semi-annually not in advance at the average rate determined by the Treasurer to be applicable to the monies allocated by the Minister to that part of the Cost included in Schedule "B" as amended from time to time.
- (9) Interest shall be payable on the Principal and all sums owing to the Treasurer hereunder and in arrears.

(10) The share of each Municipality for purposes of clauses 3(a) and (b) shall be based on estimates of volumes of water to be supplied and any adjustments under subsection 4 shall be based on quantities of water supplied as determined by the Crown.

(11) The liability to make payments to the Crown referred to in subsection 3 shall be the several liability of the Municipalities and the Crown shall not call on the Municipalities to pay any share of any amount due the Crown by any other Municipality.

(12) In determining the cost of operating the Works the Crown shall include the cost of acquiring water under the West Lambton Order, and this item of cost may be shown as a separate item in any account or precept.

Part D - General

10. (1) This agreement shall remain in force until all obligations of the Municipalities to the Crown have been discharged to the satisfaction of the Crown, as evidenced by a certificate of the Minister which he shall not be obliged to issue prior to the end of the amortization period provided in clause 9(3)(c) and unless the request referred to in subsection 2 has been received and arrangements have been made satisfactory to the Crown, with respect to the transfer of any Crown employees engaged in connection with the Works.

(2) The property of the Crown acquired or provided solely for the Works and not otherwise disposed of shall, after the issue of the certificate referred to in subsection 1 and at the request of Municipalities in writing be transferred to one or more of the Municipalities.

(3) Notwithstanding subsections 1 and 2, where the Works serve Municipalities or persons other than the parties to this Agreement, neither shall this Agreement terminate nor shall the ownership of the said assets be so transferred unless and until it is shown to the satisfaction of the Crown that:

- (a) all obligations to the Crown of such other participants have been discharged;
- (b) the Municipalities party to this agreement have relieved and will indemnify the Crown from any obligations which the Crown may have arising in any way out of the participation of the Works by such other participants; and
- (c) the Municipalities party to this Agreement have agreed with each of such other participants as to the terms and conditions under which the Municipalities party to this Agreement will take over the assets as aforesaid.

- 11. The Crown may, upon the request of the Municipalities permit persons authorized by the Municipalities to enter upon and inspect the Works during its construction and operation.
- 12. The Crown shall obtain such policies of property and liability insurance with respect to the Works as the Crown from time to time normally acquires for similar works, if any, and any policy of property insurance shall provide that the Municipalities are insured thereunder provided that the proceeds of such policy shall be used first to reinstate or indemnify the Crown and any amount remaining in the coverage available for such purposes shall be used to reinstate or indemnify the Municipalities.

13. Where rates or charges charged or chargeable in respect of any land are imposed by a Municipality on the owners or occupants of such land in respect of the supply of water, the Municipalities shall, in default of payment of the rates in respect of the Works, exercise when necessary all remedies provided by law for the collection of such rates, and without limiting the generality of the foregoing, if any such default continues for a period of six months, may shut off the supply of water under the authority of subsection 27(3) of the Public Utilities Act.
14. (1) Subject to approval by the Ontario Municipal Board, this agreement comes into effect as of the day of
 , 19 .

(2) In the event that approval of the Ontario Municipal Board is not obtained by the date set out in subsection (1) and is obtained at a later date, such financial adjustments, if any, as are required shall be made so as nearly as possible to adjust matters between the Crown and the Municipality to the state they would have been if the agreement had been approved and in force by such date.
15. This agreement is subject to the provisions, as they may be made, issued or amended from time to time, of the Ontario Water Resources Act and regulations made and any order issued thereunder and any substitutions therefor and in the event of any conflict, ambiguity or inconsistency between any provision of this Agreement and any provision of the said Act, regulations or order, the provisions of the Act, regulations or order shall prevail.
16. Wherever any power or discretion is given to the Minister or the Treasurer hereunder, the Minister or Treasurer may delegate such power or discretion in the same way he could have as if the power or discretion were granted him by statute.

17. All of the terms and conditions of this agreement notwithstanding, if the Crown is unable to supply water as contemplated herein by reason of events beyond the control of the Crown, or by reason of the acts or omissions of a Municipality, the Municipalities shall reimburse the Crown for all costs incurred by the Crown in pursuance of its obligations under this agreement, upon such reasonable terms and conditions as the Crown in its discretion may decide.
18. Except as otherwise expressly provided in this agreement, the Crown in its discretion shall determine all matters with respect to the Works and without limiting the generality of foregoing, shall determine:
 - (a) the number of stages in the Works and the dates on which such stages shall be provided or acquired;
 - (b) the design, description, capacity, function, alterations, replacements, modifications and enlargements of each stage of the Works; and
 - (c) all matters affecting the economy of the Works.
19. All of the terms and conditions of this agreement notwithstanding, nothing herein contained creates any obligation, express or implied on the Crown to supply water hereunder which, as determined by the Crown would not be in accordance with good engineering principles or practice, and without limiting the generality of the foregoing, nothing therein contained creates any obligation, express or implied, if in the opinion of the Crown, the probable effect of such enlargement, extension, alteration or modification would be detrimental to the Crown's source of supply of water used for the Works.

20. Whenever this Agreement is amended or supplemented to bring in an additional municipality as a new participant in the Works such municipality may become a participant by executing a counterpart of this Agreement which shall continue in force as though such municipality were named a municipality party herein and the Crown shall issue such adjusting accounts, precepts or statements as are appropriate to reflect the new participant.
21. The Municipalities hereby release, discharge and covenant and agree at all times to indemnify and save harmless the Crown from and against all claims including:
 - (a) all claims from property damage or injuries, including injuries, resulting in death, to any property or person or persons and any consequential damages arising from such damages or injuries whether such damages or injuries be caused by or attributable to the negligence of the Crown or its officers, agents, servants or employees or otherwise;
 - (b) all claims, actions and awards under the Workers' Compensation Act or similar Acts: and
 - (c) all demands, liability, loss, costs, damages, expense, compensation, awards or payments of every kind or nature whatsoever, and all actions, suits or proceedings of every kind or nature whatsoever, by whomsoever incurred, sustained, suffered, made, brought or taken:

and in any manner connected with, caused by or attributable to the entry into this Agreement, the performance or the failure to perform the terms and conditions hereof or the

design, construction, maintenance or operation of the Works, whether arising before or after the entry into of this Agreement, except to the extent that the Crown is indemnified under a policy of insurance part or all of the premiums of which are charged to the Municipalities by the Crown pursuant to this or another agreement in relation to the Works and to the extent such amount is recoverable and is recovered by the Crown from another person.

22. The failure of any party hereto to carry out any of the terms, covenants and conditions of this agreement shall not release the other party from the performance of any terms, covenants or conditions of this agreement, but this clause shall not affect any right of action that may arise for damages for breach of this agreement or otherwise.
23. This agreement contains the entire agreement between the parties hereto with reference to the subject matter hereof, shall not be altered or amended except by an agreement in writing duly executed by the parties hereto, shall enure to the benefit of and be binding upon the parties hereto and their successors and shall not be assigned in whole or in part without the written consent of Crown.

IN WITNESS WHEREOF the parties have duly executed this Agreement.

DATED THIS day of 19 .

HER MAJESTY THE QUEEN IN RIGHT OF
ONTARIO AS REPRESENTED BY THE
MINISTER OF THE ENVIRONMENT

Minister

THE CORPORATION OF THE TOWN OF DRESDEN

Per: _____ C/S

Mayor

Clerk

THE CORPORATION OF THE TOWN OF WALLACEBURG

Per: _____ C/S

Mayor

Clerk

THE CORPORATION OF THE TOWNSHIP OF CAMDEN

Per: _____ C/S

Reeve

Clerk

THE CORPORATION OF THE TOWNSHIP OF CHATHAM

Per: _____ C/S
Reeve

Clerk

THE CORPORATION OF THE TOWNSHIP OF SOMBRA

Per: _____ C/S
Reeve

Clerk

SCHEDULE "A" TO AGREEMENT BETWEEN HER MAJESTY THE QUEEN
IN RIGHT OF ONTARIO AS REPRESENTED BY THE MINISTER
OF THE ENVIRONMENT AND THE MUNICIPALITIES

LAMBTON/NORTH KENT AREA WATER WORKS
MOE PROJECT NO. 6-0290

DESCRIPTION OF WORKS

1. TRUNK WATER MAIN AND PUMPING FACILITIES

a) Water Mains

<u>FROM</u>	<u>VIA</u>	<u>TO</u>	APPROXIMATE LENGTH (m)	NOMINAL DIAMETER (m)
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b) Pumping and Storage Facilities

DESCRIPTION

CAPACITY

SCHEDULE "B" TO AGREEMENT BETWEEN HER MAJESTY THE QUEEN
IN RIGHT OF ONTARIO AS REPRESENTED BY THE MINISTER OF
THE ENVIRONMENT AND THE MUNICIPALITIES

MUNICIPAL ALLOCATIONS OF CAPITAL COST

<u>Municipality</u>	<u>Capital Cost</u>	<u>Less MOE Subsidies</u>	<u>Share of Capital Costs</u>	<u>Less Municipal Reserve & Prepayments</u>	<u>Estimated Municipal Debt</u>
Town of Dresden					
Town of Wallaceburg					
Township of Camden					
Township of Chatham					
Township of Sombra					
Joint Board's Approved Total					

Note: The above amounts are estimates and are subject to
adjustment based on actual costs incurred

EXHIBIT LIST

1. CHA Notice - August 6/91 and amending letter - December 5/91 from Mr. C. Carscallen
2. Director's referral to Environmental Assessment Board - December 11/91
3. Affidavit of Service of Notice of Application dated December 11/91 - sworn January 27/92 (by mail)
4. Affidavit of Service of Notice of Application dated December 11/91 - sworn January 27/92 (by newspaper)
5. Affidavit of Service of Notice of Hearing dated March 16/92 - sworn April 21/92 (by mail)
6. Affidavit of Service of Notice of Hearing dated March 16/92 - sworn April 15/92 (by newspaper)
7. Statement of Issues; Moore Township - April 21/92
8. Preliminary Statement - Wallaceburg Citizens Coalition for Clean Water - April 21/92
9. Presentation by Leslie Hosier - April 21/92
10. Memorandum of Agreement
11. Amendment to the Master Agreement
- 11A. Amended Agreements
12. Notice of Motion
13. Environmental Study Report
14. Interim Stage 3 Report dated May 1986
15. Interim Supply Study Stage 4 Report Evaluation and Design Alternatives dated March 1990
16. Environmental Study Report Lambton Area Water System dated November 1990
17. Lambton North Kent Water Supply Study Map

Appendix I

EXHIBIT LIST

18. Study Approach and Timing chart
19. Assessment of Design Alternatives
20. Proposed water supply system
21. Lambton water treatment flow chart
22. Water demand (without North Kent) graph
23. Projected maximum day water demand for the year 1995
24. Projected maximum day water demand for the year 2000
25. Projected maximum day water demand for the year 2015
26. Layout of existing and future facilities
27. Excerpts from the number 2 interim report of January 1990
28. Daily water demand/rainfall '88 to '91
29. Wager Figure 1, Exhibit B
30. Figure 2, Exhibit B
31. List of spills
32. Figure 1, Exhibit C
33. Figure 2, Exhibit C
34. Table 1, Exhibit C
35. Capital cost breakdown
36. Lambton North Kent water supply system
37. Lambton North Kent water supply system, Schedule 3
38. Schedule 1 of Mr. Ramdeo's Witness Statement

EXHIBIT LIST

39. Agreement and a draft attached to a draft by-law
40. Letter of Agreement
41. Schedule A
42. Letter from consulting engineer
43. Drinking water surveillance program Dresden data
44. Schedule 3, Capital Works
45. Council Minutes and Management Report
46. Letter by Mr. Thomas to Council
47. Letter to the Honourable Ruth Greir, Citizens' Coalition and Joe Faas
48. Township of Moore Rural Water System
49. Public responses to the Surveys
50. Letter from the Minister dated June 23, 1992
51. Council minutes of January 22nd, 1990
52. Excerpt from the lawn-watering by-law
53. Report to City Manager - July 3, 1990
54. Memorandum to the Chief Administrative Officer from Mr. Mackenzie, December 27, 1991
55. Report to Council, dated February 17, 1992
56. Report to City Manager - July 9, 1991
57. Report to Council on pumpage rates, August 12, 1991
58. Letter dated September 6, 1991

Appendix I

EXHIBIT LIST

- 59. Letter dated October 28, 1991 from the Ministry, acknowledging receipt of the report
- 60. Chart put up by Mr. Provart
- 60a. New number for Exhibit No. 60
- 60b. Comparison chart
- 61. Financial information, City of Sarnia
- 62. Letter dated April 14, 1992 to the Lambton Industrial Association
- 63. Table of spills requiring shutdowns
- 64. Schedule of projected water rates prepared by Mr. Denys
- 65. Brief of Leslie James Hosier
- 66. Slide, frontispiece to presentation
- 67. Participant's amendment 6A, 6B, 6B1, 6C, 6C1, 6D and 6E, 6F, 6F1, and 6F2, 51A, 51B, 51C, 51D, 198A, 61A, 62A, 62AA, 62A1, 62A2, 62B, 62B1, 92A, 95B, 95C, 95D, 95E, 101E1, 101E, 101F, 101G, 101A, 101B, 101C, 101D, 105A, 105B, 105C, 105D, 105E, 105F, brochure entitled, "A Little More Throttle Makes a Lot More Sense; Lambton Industrial Society monograph on the St. Clair River-Chemical monitoring; 110A, letter of September the 16th from the Ministry of the Environment signed by Mr. Gary Johnson, Senior Project Advisor, Detroit, St. Clair and St. Marys Rivers; 110C pamphlet St. Clair River Remedial Action Plan dated July 14, 1992; St. Clair River biomonitoring
- 68. Needs Profile for Sarnia-Lambton
- 69. Letter to Mr. Hosier from the Ministry of the Environment, dated March 5, 1992 from Mr. H.L. Wigle, District Officer, Sarnia Area office re 1990 reports
- 70. Guide to Weed Control produced by the Ministry of Agriculture and Food
- 71. Remedial Action Plan for the St. Clair River
- 71A. Executive summary of Remedial Action Plan for the St. Clair River

Appendix I

EXHIBIT LIST

- 72. Water quality studies of Mudd Creek, July-September 1985 by Water Resources Assessment Unit, Technical Support Section Southwestern Region
- 73A. Wallaceburg annual report
- 73B. Dresden annual report
- 73C. Alvinston annual report
- 73D. Sarnia (Lambton County) annual report
- 74. PALIS parameters listing system brochure
- 75. Toxic Chemicals in the Great Lakes and Associated Effects
- 76. International Joint Commission report dated February 1992
- 77. The State of Canada's Environment chapter 18, pages 18-25
- 78. Energy Matters, ESR
- 79. Package submitted by Mr. Forgie on August 25th
- 80. Letter from the Minister to the Mayor of Wallaceburg dated July 2, 1992
- 81. Letter to Mr. Forgie from the Minister dated October 20, 1992.
- 82. Package of memorandum, letters concerning Gore & Storrie Limited and the Wallaceburg Water Commission
- 83. Letter to Mayor Jeff Wesley dated October 5, 1992 from W. J. Hargrave
- 84. Summary of Estimated Capital Cost
- 85. Capital Costs WIA Criteria Status Quo
- 86. Table 1A
- 87. Capital Costs MOE Dillon Criteria

CA20NCH 93C13

Ontario. The Consolidated Hearings Act, 1981.
Ch-91-13

LAMBTON-NORTH KENT AREA WATER WORKS DECISION /
FOR DECISION IN THE MATTER OF AN UNdertaking I
ONTARIO MINISTER OF THE ENVIRONMENT... 1993.

**RESOURCE CENTRE
INST. FOR ENVIRON'L. STUDIES
UNIVERSITY OF TORONTO**



